

1903.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT

OF THE

ROYAL COMMISSION

(APPOINTED ON THE 12TH FEBRUARY, 1903)

TO INQUIRE INTO THE

Fatal Accident which took place at the Broken
Hill Central Mine, on the
8th October, 1902;

TOGETHER WITH

MINUTES OF PROCEEDINGS AND EVIDENCE, EXHIBITS,
AND APPENDICES.

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Commission.

EDWARD THE SEVENTH, by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India,—

To Our Trusty and Well-beloved—

ERNEST LESLIE MAITLAND, Esquire, Police Magistrate and Warden, Broken Hill.

Greeting:—

KNOW you, That We, reposing great trust and confidence in your ability, zeal, industry, discretion, and integrity, do, by these presents, authorise and appoint you, the said ERNEST LESLIE MAITLAND, to make a diligent and full inquiry into the cause or causes of the fatal accident which took place at the Broken Hill Central Mine, at Broken Hill, in Our State of New South Wales, on the 8th October last; also to investigate all the circumstances in order to ascertain whether blame attaches to any person or persons, and, if so, to report the person or persons, to whom, in your opinion, the blame attaches; and further to make any suggestion with a view to the prevention of such accidents which you may deem advisable: And We do, by these presents, give and grant to you, full power and authority, with all proper or necessary assistants, at all times to enter into, or upon, the aforesaid mine, to descend all pits and shafts, and to enter into and to use all adits, levels, galleries, drives, and excavations, and to use all roads, ways, engines, ropes, machinery, gear, appliances, material, labour, and other things in or on the aforesaid mine, which shall be by you deemed necessary, so that in so doing no unnecessary interference with the working of the aforesaid mine be caused: And to call before you all such persons as you may judge necessary, by whom you may be better informed of the truth in the premises, and to require the production of all such books, papers, writings, plans, sections, and all other documents as you may deem expedient, and to visit and inspect the same at the offices or places where the same or any of them may be deposited, and to inquire of the premises by all lawful ways and means: And Our further will and pleasure is that you, after due examination of the premises, do and shall within three months after the date of this Our Commission, or sooner if the same can reasonably be done, certify to Us, in the Office of Our Secretary for Mines, under your hand and seal, what you shall find touching the premises: And We hereby command all Government Officers and other persons whomsoever within Our said State, tant to you in the execution of these presents: And We do hereby declare this Our a Commission for all purposes of the Act 44 Victoria No. 1, intituled "An Act to of Evidence by Commissioners under the Great Seal."

By whereof, We have caused these Our Letters to be made Patent, and the Public Seal said State of New South Wales to be hereunto affixed.

In witness Our Trusty and Well-beloved Sir HARRY HOLDSWORTH RAWSON, Vice-Admiral in Our Royal Navy, Knight Commander of Our Most Honorable Order of the Bath, Our Governor of Our said State of New South Wales and its Dependencies, in the Commonwealth of Australia, at Sydney, in New South Wales aforesaid, this twelfth day of February, in the third year of Our Reign, and in the year of Our Lord one thousand nine hundred and three.

(L.S.) HARRY H. RAWSON,
Governor.

By His Excellency's Command,
JOHN SEE.

Entered on Record by me, in the REGISTER OF PATENTS No. 24, page 294, this sixteenth day of February, one thousand nine hundred and three.

For the Colonial Secretary and Registrar of Records,
CRITCHETT WALKER,
Principal Under Secretary.

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see next 11.

THE ROYAL COMMISSION APPOINTED TO INQUIRE INTO THE CAUSE OF
THE FATAL ACCIDENT AT THE MINE OF THE SULPHIDE
CORPORATION COMPANY (LIMITED), COMMONLY KNOWN AS THE
"CENTRAL MINE," BROKEN HILL, ON THE 8th OCTOBER, 1902.

REPORT.

To His Excellency SIR HARRY HOLDSWORTH RAWSON, Vice-Admiral in
the Royal Navy, Knight Commander of the Most Honorable Order
of the Bath, Governor of the State of New South Wales and its
Dependencies, in the Commonwealth of Australia.

MAY IT PLEASE YOUR EXCELLENCY,—

On the 8th October, 1902, a "creep" or movement occurred on the
boundaries of the Central and Broken Hill South Mines, causing the death of two
men named Thomas Campbell and Leopold Jordan, who, at the time, were attending
to a mullock chute or pass between the 400-foot and 500-foot levels in the Central
Mine: And by your Excellency's Commission of date the 12th February, 1903,
your Commissioner was directed to make a full and diligent inquiry into the matters
following, viz.:—

1. The cause or causes of the fatal accident which took place in the Central
Mine, at Broken Hill, on the 8th October, 1902;
2. To inquire into all the circumstances in order to ascertain whether blame
attached to any person;
3. If blame attached, to report the person or persons who were blamable; and
4. To make suggestions with a view to the prevention of such accidents.

Your Commissioner, after the examination of fifty-eight witnesses, whose
evidence is annexed to this Report, and having, both before and after the taking of
the evidence, personally inspected the locality where the two men, Thomas Campbell
and Leopold Jordan, are supposed to have met their death, and also the various levels
of the Central and South Mines affected by the aforesaid "creep" or movement, has
now the honor to present his report.

The Commission was opened on the 10th March last, at the Town Hall,
Broken Hill. For the purpose of giving every publicity to the proceedings,
advertisements were inserted in the local papers inviting all persons having any
knowledge of the matters within the scope of the Commission to send in their names
to the Secretary, for the purpose of being summoned as witnesses.

On the opening of the inquiry the following gentlemen asked for permission
to appear:—

Mr. W. H. J. Slee, Chief Inspector of Mines, on behalf the Department of
Mines and Agriculture; -

Mr. W. J. Wise, Secretary to the Amalgamated Miners' Association, on behalf
of that Association;

Mr. A. J. Hall, Solicitor, on behalf of the Central Mine; and

Mr. J. R. Edwards, Solicitor, on behalf of the Broken Hill South Mine.

To this your Commissioner consented.

In

In pursuance of a requisition previously made, plans were produced of the boundary workings of both mines, which showed the effect of the "creep" on the various levels, and your Commissioner, with the representatives before mentioned, then proceeded to thoroughly inspect the scene of the "creep." This arduous work occupied two days. Witnesses were then called, and in order to secure continuity of evidence, your Commissioner allowed the representatives of the parties mentioned to call such witnesses as they desired to be heard, and in such order as they suggested. Your Commissioner then called such witnesses as could, in his opinion, give evidence material to the matter in question. In this manner an exhaustive inquiry was held, and your Commissioner is of opinion that all possible evidence of value to the inquiry was adduced.

At the conclusion of the evidence, your Commissioner again visited the scene of the movement, in order to ascertain whether his impressions, created by certain portions of the evidence, were correct or otherwise.

Description of the Mines.

The Central and Broken Hill South are silver-lead mines. The lowest working levels are 800 feet in the main shaft; plats or chambers are put in at each 100-foot level, and the ore raised by means of drives and crosscuts.

The ore at the higher levels was carbonate, then friable sulphide, to perhaps 400 feet, when the ore body gradually took a harder form, the solid sulphide being as hard as road metal, although bands or seams of friable ore occur at intervals even at the lower levels. The lode is irregular and very extensive, being, in places in the Central Mine, as much as 300 feet in width.

At the higher levels, the working system followed was that of square-set timbering without filling, which at that time was favoured in America, and was generally considered as sufficient protection in the worked-out ground. As time went on, however, it became evident that timber alone was altogether insufficient to resist the pressure of the hanging wall in this enormous lode, and the practice of filling the square sets with earth or mullock was commenced. But in the meantime the timber in the old stopes had wholly or partially collapsed, so that it was considered impossible to further secure them, and they thus became, and still are, a menace to the safety of the mines and miners.

The system of square-set timbering with mullock filling was still followed where the ore was soft, friable, or appeared unsafe, but where the ore was hard and solid it was worked in stopes of some 50 feet wide, the roof or "back" being kept in the form of an arch of from 6 feet to 8 feet above the floor supported when necessary by bulkhead timbering. The ore as taken out was replaced by mullock, the floor in this case being kept close to the back, each layer of mullock, by the falling and breaking of the ore upon it, becoming solidified to nearly the consistency of the original ore body. There is, however, in time a certain amount of shrinkage of filling, or mullock, averaging probably, under the most favourable conditions, 15 per cent. to 20 per cent. where square-set timbering is used, and from 6 per cent. to 10 per cent. in open stopes. The gradual shrinkage of this mullock causes what is known as a "settlement," and where the contiguous ground is affected, or where the settlement gets beyond control, it is then called a "creep." In the latter case, drives, gangways, and chutes are generally crushed, and cavities created.

To bring the mullock to the various portions of the mine, mullock passes or chutes are used. These are sometimes sunk through the solid rock, or else formed of timber. What are known as the "main" mullock passes often run from the surface to the lower levels of the mine. The mullock from the passes is run into trucks, and is then taken by workmen, known as "mullockers," to various parts of the mine as required. The passes are at times "hung up" or choked, and it then becomes the duty of the mullockers to free them.

The Scene of the Accident.

The mullock pass or chute, known as "B 5," the principal chute in the southern portion of the Central Mine, was utilised for the purpose of conveying mullock from the 400-foot level. For about 40 feet it was cut through the solid rock until reaching what is called by the various witnesses the "Slide." From that point

point it was constructed of solid timber, built beside a pillar of ore known as the "A 3" pillar. From the mouth of this chute on the 500-foot level to the South Mine boundary is about 250 feet.

The chute, at times, choked or "hung up" at the "Slide," and, in order to free the mullock and cause it to run, it became necessary for the mullockers to proceed about 50 feet southerly, along a main cross-cut, then up ladders 60 feet, then northerly, along a gangway, some 60 feet to the "Slide." This gangway, originally 6 feet high, had been half filled with mullock for further security, and, owing doubtless to dust from the chute, it was at times necessary to lie down in order to set the mullock running, but it has been pointed out in evidence it only needed a little work to materially increase the room if more was required.

At the time of the accident the Central Mine was only working two shifts, from 8 a.m. to midnight, but twenty-six men, in charge of Alfred George Crimp, a mullock boss, were employed from midnight to 8 a.m. in timbering and mullocking.

On the morning of the 8th October, 1902, Thomas Campbell, Leopold Jordan, and Joseph Lyons were trucking from the "B 5" chute. Alfred Francis Cooley, Thomas James Prisk, and Thomas Brokenshire were working on the same level, in "C 3" stope, some 300 feet distant. Crimp was on the 700-foot level, and Prior and Slocum were timbering a pass just below the 400-foot level, and about 600 feet from the south boundary.

At about 3 a.m. Lyons, on arriving at the chute, found Jordan and Campbell absent, and, coming to the conclusion that they had gone up to run the chute, waited for them. A few minutes afterwards a rush of wind and dust came down the chute and extinguished his light, and he crawled out of the drive.

Lyons' account of the affair is very incoherent, and he evidently has suffered much from shock and excitement.

Crimp, in describing the movement, said, "She (meaning the mine) seemed to go from top to bottom."

Prior and Slocum had their light blown out by a strong wind, and believing a fall had taken place, went to see if the men were safe. Campbell and Jordan could not be found, and in searching it was ascertained that "B 5" chute was still standing, although the timbers were moving and groaning. After a further unsuccessful search, while the timbermen were waiting on the 600-foot level, another heavy fall occurred, making the rescue of the unfortunate men an impossibility.

Upon investigation, it was ascertained that the surface on the boundary of the South and Central Mines was affected, and that a large hole, chiefly inside of the South Mine boundary, had been caused by the sinking of the ground.

In the Central Mine it was found that a very large area had been affected. On the 400-foot level large cavities were discovered, and the workings had been disturbed for a distance of 260 feet from the South Mine boundary. At the 500-foot level this movement had extended some 30 feet further north, but on the 600-foot level the affected ground was of less extent. On the 700-foot level no trace of any movement could be detected.

In the South Mine the area affected was much smaller, the maximum being about 80 feet from the Central boundary; but crushed ground can be seen near the 800-foot level, although the area is limited to a few sets.

The Rescue Work.

Every effort has been made to recover the bodies of the victims of the accident. "B 5" chute, which had completely collapsed, was renewed for some 60 feet, when the ground became too dangerous, and further work in this direction was delayed until the level above could be further secured. The Chief Inspector of Mines visited the Central Mine immediately after the accident, and again during the progress of this inquiry, and, in reply to Question No. 4948, stated, "That everything possible has been done to recover the bodies."

The Cause of the Accident.

In order to arrive at some conclusion as to the cause of the accident, it will be necessary to go back to the early days of the mines. In June, 1892, a fall took place on the Central and South Mines boundaries, affecting both mines from the
350-foot

350-foot level to the surface, the cause being that the timbering in the depleted stopes was not sufficient alone to resist the pressure. In the year 1895 a huge slide came off the hanging wall at the 400-foot level in the South Mine, near the boundary. On the 24th May, 1901, another fall of ore from the breast, or back, occurred in the South Mine, also near the boundary at the 500-foot level. In June, 1902, a movement was discovered in the Central Mine, near what is known as the old South Shaft, situate about 80 feet from the boundary, and upon examination it was found that a cavity existed just below the 400-foot level. It commenced at the north side of the old South Shaft, and trended at an angle of 45 degrees in the direction of the south boundary. To further locate and explore this movement, a winze was sunk about half-way to the South boundary, and at some 44 feet a second cavity was discovered, which trended in a similar direction to that previously seen. The South Mine was visited, when it was found that there had been a further fall in the neighbourhood of that of the 24th May, 1901, but to what extent could not be ascertained. During the inquiry an endeavour was made to connect the June, 1902, movement in the Central Mine with the scene of the fall in the South Mine of May, 1901, but in the opinion of your Commissioner the evidence adduced does not bear out this contention, but rather leads to the conclusion that the June, 1902, "creep" was caused by a natural shrinkage of mullock away from the old back, leaving it unsupported. The cavities discovered in the Central Mine were filled in and made as secure as circumstances would permit. Between the time the cavities were filled and the 8th October, 1902, four men—Simmons, Manley, Hocking, and Gainer—when at work in the Central Mine, in the locality of the cavities, heard the sound of falls towards the boundary of the South Mine, apparently coming from the direction in which the cavities were trending.

The occurrences which took place on the 8th October, 1902, are described in various ways. Crimp, the mullock boss, a man of fourteen years' experience, states: "I heard a noise which seemed to me like a breakaway (by a breakaway I mean a fall); she came away in one mass and started to run." Prior, a most intelligent witness, says, in speaking of the movement described by Crimp, "There would not have been so much wind in this place if there had not been a fall." He also heard a fall about half an hour afterwards. At the time of the movement, Simmons, Weiser, Ferguson, and Harris, who were engaged on the 600-foot level in the South Mine—some 170 feet from the boundary—first felt a puff of wind, and shortly afterwards a strong rush of wind and dust, which apparently came from the north; they also heard a rumbling noise, but no fall. Colmer, the shift-boss, was at the time on the 800-foot level and felt two puffs of wind, four or five minutes apart, the first very light; the second was heavier, and blew the light out. He heard the timbers groaning, but heard no fall. On reaching the 600-foot level, twenty minutes afterwards, everything was quiet. Nothing appears to have been heard of any subsequent fall in the South Mine.

It is, of course, utterly impossible for any person to say absolutely how the "creep" occurred, but, after careful consideration of all the circumstances, it appears to your Commissioner that most probably the cause of the movement was a continuation of the "creep" of June, 1902, a sudden fall from the unsupported back causing the first puff of wind felt in the South Mine. The effect of the fall would be to weaken the ground above the 400-foot level. A heavy fall occurred immediately above that level, crushing down stopes, gangways, and chutes, thus making room for the mullock which had filled the large cavities now to be seen in the vicinity of the 400-foot level, this fall causing the wind and dust felt by Lyons, Crimp, and the men in the South Mine. Some half an hour after the heavy fall described by Prior and Slocum came, affecting the boundaries through to the surface, and completing the wreck of the timbering in the neighbourhood of the "B 5" chute and elsewhere.

Is Blame attachable to any Person?

The question as to whether any person or persons are in any manner blamable for this disaster has now to be considered. The persons who are chiefly concerned are the Managers of the Central and Broken Hill South Mines, and their officers, and the Inspectors of Mines.

The

The Central and Broken Hill South Mines are worked under the direction of underground managers and shift-bosses. The underground managers of both mines are men of long mining experience, while the shift-bosses are selected on account of practical mining experience and an intelligent interest in their work.

The lode in the Central Mine is one of the largest in the world, being over 300 feet in width near the boundary of the South Mine, and, by reason of its immense size, irregular form, the frequent occurrence of bodies of soft or friable ore, and of heavy ground, presents many mining difficulties. These are probably added to by the main shaft having been sunk through the lode, and the presence of the reduction mills and other buildings immediately over the workings.

The mine is worked on what is known as the "pillar and stope" system—that is, it is divided into sections of 50 feet each, every alternate section being left as an intact pillar of ore for the present, while the other sections are stoped. This system, however, does not appear to have been strictly adhered to in the neighbourhood of the South Mine.

In mining the working sections, the practice of square-set timbering, or open stopes, as previously described, is followed, and from the evidence adduced it appears that the management spares no expense in having the stopes mullocked as the ore is raised.

In the cavities exposed since the "creep," mullock is to be seen on the backs, proving conclusively that these stopes had originally been mullocked up to the roof, and in June last, when the "creep" was discovered, the matter was carefully investigated and everything possible done to make the ground secure to the complete satisfaction of the Inspector of Mines.

The question may be suggested as to whether the gangway leading to the slide in the "B 5" chute, as described by several of the witnesses, notably Lyons, Reid, Williams, and Hughes, was a proper place for men to work in, and, as it appears from the evidence that mullockers in the performance of their duty had frequently to visit and relieve the chute at this place, your Commissioner, although thoroughly assured that the state of the gangway had no bearing on the disaster, is decidedly of opinion that better access to the slide should have been provided, and in view of the "creep" in June, 1902, it would have been better and safer if an approach had been provided from the north side.

In the Broken Hill South Mine the sulphide ore generally is harder, and the payable bodies of less extent, being more in the nature of pipes of payable ore surrounded by ore of an inferior quality. In regard to the working of this mine, it was contended that the mullock filling was insufficient, and the weakness caused thereby was one of the primary causes of the "creep," but this has not been borne out in evidence. The natural trend of the ore body is towards the south, and it is therefore only to be expected that the pressure of the "creep" would naturally go in the same direction. It must also be borne in mind that, while the Central Mine is affected for 290 feet from the boundary on the 500-foot level, the movement in the South Mine at that level only extends 75 feet, and further, that although other matters regarding the working of the mine have been brought under the notice of the Chief Inspector of Mines, no complaint as to the insufficiency of filling has ever been made to him by his officers or others.

It has also been stated that the South Mine officials have not properly investigated the various movements that have occurred from time to time near the boundary, but it might here be pointed out that such investigations were hardly necessary, inasmuch as these movements were falls of ore of a known extent, and also that neither the Central Mine officials, or the inspectors of mines, appear to have made any application for further examination, or to have suggested it was desirable.

Two inspectors of mines are stationed at Broken Hill, and, under Act No. 75 of 1901, they are empowered to make such inspection, examination, and inquiry as may be necessary to ascertain whether, in respect of any mine, the provisions of the Act relating to matters above or below ground are complied with—at all times by day or night to enter any mine and inspect the same, and examine and inquire respecting the state and condition of the mine or any part thereof, and all matters or things connected with or relating to the safety of the persons employed in or about the mine, or any mine contiguous thereto—to exercise such other powers as

may be necessary for carrying the Act into effect, and further, if they find any mine or any matter in connection therewith, or with the management thereof, to be so dangerous or defective so as, in their opinion, to threaten or tend to injure the health or body of any person, such inspectors shall give notice in writing to the owner or manager of such mine requiring the same to be remedied within a stated period—failing this being done the inspectors may take proceedings and a heavy penalty inflicted.

Messrs. Milne and Godfrey, the local inspectors, have been most attentive in the performance of their duties, visiting each mine at least three times a month, and on special occasions much oftener. They express themselves as thoroughly satisfied with the general mining work, and the co-operation of the management in all matters suggested by them for the safety of the workmen. At the time of the June movement, special and frequent visits were made to the locality, every effort made to investigate the cause of the "creep," and they express the opinion that the utmost was done to secure the safety of the mine. The opinion of these officers as to the cause of the disaster, in view of their large practical experience and intimate knowledge of the workings of the mine, must have great weight. In the opinion of your Commissioner no responsibility or blame attaches to either of these officers.

Suggestions with a view to the prevention of such Accidents.

In mines of the character of those at Broken Hill, which, from their vast extent, irregularity of contour, and hardness of the ore body, being in one place as hard as road metal, and of a friable nature in another, the frequent occurrence of veins and soapy heads making falls from the back probable, unite in making them one of the most difficult mining propositions yet encountered. "Creeps" or movements, from time to time, owing to the natural shrinkage of the mullock filling, and the pressure from the hanging wall, cannot be wholly prevented. The best that can be done is to minimise the evil as far as it is possible. The managers of these properties are men of large mining experience, many of them of world-wide reputation, and all that experience and science can teach has been brought to bear to ensure the best methods being adopted, with a view to economical working with due regard for the safety of the workmen and the mine; consequently, the system at present followed leaves but little room for improvement, provided all stopes are fully mullocked up as the ore is mined, all old depleted stopes watched, mullock filling added when necessary, and constant attention given to bulks under old backs.

The depleted stopes in the higher levels, filled with skeleton sets of timber, a legacy from the early days of the Barrier, are a most serious menace to the safety of the mines and the employees, and every effort should be made to locate and fill them.

The boundary question is a vexed one, and, in the opinion of your Commissioner, the mode of mining on the boundaries of mines such as those in Broken Hill should be fixed by legislation, and, in view of the danger from fire in mines where so much timber is used, it would be most advantageous if pillars of ore were left on both sides of the boundary, the size to be regulated by the width of the ore body, the character of the ore, and the surrounding circumstances. Such a pillar would be a natural protection, and likewise would serve to isolate either mine in the event of a fire occurring.

Some evidence was given as to the advisability of leaving a solid arch of ore under the scene of the October and similar movements, so that the miners would be enabled to work with a solid back above them, but, in view of the diffuse opinions expressed, your Commissioner is unable to make any suggestions, other than it appears to be a subject worthy of consideration.

Is the present system of inspection sufficient?

Several witnesses expressed the opinion that more mining inspectors were required, but no reasons were given, other than it would occupy the whole of one officer's time to inspect the Proprietary Mine alone. But this opinion appeared to be given under an erroneous idea of an inspector's duties. In the opinion of your Commissioner the present system of inspection is amply sufficient, and an increase in

in the number of inspectors is to be deprecated as likely to reduce the status of this important office to that of a shift-boss in the mine, and to tend to remove the responsibility from the mine management to the Department of Mines.

In conclusion your Commissioner finds—

1. That the fatal accident on the 8th October, 1902, at the Central Mine, Broken Hill, was caused by a fall or series of falls of earth.
2. That such fall, or series of falls, were a continuation of previous movements in 1892, in the South Broken Hill and Central Mines, and in June, 1902, in the Central Mine.
3. That the managers and officials of the Central Mine have used every endeavour to ensure the safety of their property.
4. That no act or omission on the part of the manager or officials of the Broken Hill South Mine has contributed to the disaster.
5. That the inspectors of mines have faithfully carried out the duties of their office.
6. With regard to the future safety of the mines and workmen, that the mullocking or filling of stopes and workings should have the most careful attention.
7. That all filled stopes should have constant attention, additional mullock added, and bulks wedged, when necessary.
8. That the utmost endeavours be made to locate depleted stopes at the higher levels to enable the same to be filled.
9. That pillars of ore be left on the boundaries of metalliferous mines when, in the opinion of the Chief Inspector of Mines, the width of the lode or other surrounding circumstances render such a course necessary or desirable.

Before finally concluding this Report, your Commissioner desires to place on record the able manner in which Mr. Cooper has discharged his arduous duties as Shorthand-writer and Secretary.

I have the honor to be,

Your Excellency's obedient Servant,

E. L. MAITLAND, (L. O. S.)

Royal Commissioner.

Broken Hill, 16th April, 1903.

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15. Plan of South Mine main levels, showing—marked red—the ground disturbed by Creep of October, 1902, at 600-foot level.
16. Plan of South Mine main levels, showing—marked red—the ground disturbed by Creep of October, 1902, at 700-foot level.
17. Plan of South Mine main levels, showing—marked red—the ground disturbed by Creep of October, 1902, at 800-foot level.
18. Cross Sections of Central Mine, showing workings on the boundary.
19. Longitudinal Section of Central Mine.
20. " " " "
21. " " " "
22. Letter (Press copy) from Inspector Hebbard to the Chief Inspector of Mines, dated 24th October, 1897.
23. Letter (Press copy) from Chief Inspector of Mines to Inspector Hebbard, dated 31st August, 1897.
24. Letter (Press copy) from Inspector Hebbard to Chief Inspector of Mines, dated 14th July, 1896.
25. Letter (Press copy) from Inspector Hebbard to the Chief Inspector of Mines, dated 18th June, 1892.
26. Rules of the Central Mine—Underground Department.
27. Copy of letter from R. Ford, manager, Broken Hill South Mine, Melbourne, to Secretary, Sulphide Corporation, Melbourne, dated 10th May, 1903.
28. Longitudinal Sections of South Mine looking north-west, showing workings for distance of 30 feet.
29. Cross Sections of South Mine on boundary, and every 50 feet down to 300 feet inclusive.
30. Plan of South Mine Workings up to 300 feet from the boundary, showing all mining up to the date of Creep.
31. Plan of Cross Sections at every 50 feet, South Mine, showing all mining operations on all levels, and also filling.
- 32A. Plan of Floor Sections, South Mine, 11th floor, 500-foot level, to 112th floor.
- 32B. Plan of Floor Sections, South Mine, Sill floor, 800 feet, to 11th floor, 500-foot level.
33. Evidence of Samuel Mayne, given before Royal Commission on 27th June, 1901.
34. Copy letter from Manager of Block 10 Mine to Inspector Milne, 24th October, 1902.
35. Copy letter from Inspector Milne to Manager Block 10 Mine, dated 24th October, 1902.
36. Copy notice from Inspector Milne to Manager, Central Mine.

ROYAL COMMISSION APPOINTED TO INQUIRE INTO FATAL ACCIDENT AT
THE BROKEN HILL CENTRAL MINE.

MINUTES OF PROCEEDINGS AND EVIDENCE.

TUESDAY, 10 MARCH, 1903.

[The Commission sat at 10 a.m. at the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

The Secretary and Shorthand-writer, Mr. O. Dunreath Cooper, read the terms of the Commission.

Commissioner: The Commission just read empowers me to make full inquiry into the fatal accident at the Central Mine, on the 8th October last; to find if any person is blamable; and, if so, who; and to endeavour to ascertain by what means similar occurrences may be prevented. Now, as to the procedure to be followed, the parties interested are the relatives of the deceased, the Amalgamated Miners' Association as representing the miners, the management of the Central and South Mines, and the Department of Mines. I may either call the witnesses and examine them myself, and afterwards allow the parties represented to question them, or allow each party to call witnesses in support of their view of the occurrence, and allow such witnesses to be further questioned by the other representatives. This latter course will, in my opinion, lead to the best results, and ensure a continuous body of evidence. I shall first call on the Amalgamated Miners' Association, as promovents, to place their view of the accident before the Commission, then the Central Mine, who, I understand, affirm the South are to some degree responsible, then the South Mine in reply, and then the Department of Mines. I shall then call anyone who, in my opinion, can give material evidence. I think this latter course will be the better, because I am in ignorance of what evidence some of the witnesses are prepared to give. I shall first call on the Amalgamated Miners' Association to produce their witnesses, and thus put their view of the matter before the Commission, and we can proceed as I have indicated.

[The Commissioner then asked if anyone appeared on behalf of the deceased. There was no response.]

Mr. Edwards: Perhaps I might suggest that it might be as well, seeing that the inquiry appears to me to be in the hands of the Department of Mines—the Government having been moved by the Amalgamated Miners' Association—that the Department of Mines should bring their evidence first. We would then know what evidence was being produced. We would know what they were alleging, and we would know what to answer.

Commissioner: You will hear the evidence called by the Amalgamated Miners' Association on behalf of the miners, and you will then know what to ask. However, it is a matter for Mr. Slee, but he is merely calling technical evidence.

Mr. Slee: I came here to represent the Department of Mines, and the Department of Mines is not a party in the case at all. I think the method you have outlined is certainly the best—that is, to leave the officers of the Department of Mines to the last. Then you, Mr. Commissioner, can call whatever evidence you think necessary. The Department of Mines holds no side whatever in the matter, and I certainly think the course you have just stated is the best.

Commissioner: Have you any objection, Mr. Hall?

Mr. Hall: None whatever, Mr. Commissioner.

Commissioner: I will then adhere to the form I have stated. I think it would be well to have the plans put in at this stage.

Edwin Kirby Beaumont called in, sworn, and examined:—

1. *Commissioner*.] Q. You are a mining surveyor at the Central Mine? A. Yes.
2. Q. You produce certain plans? A. I produce: (1) underground plan of the Central Mine at the 300, 400, 500, 600, 700, and 800 foot levels; (2) plan of underground workings at the 400-foot level; (3) plan of underground workings at the 500-foot level; (4) plan of underground workings at the 600-foot level; (5) plan of underground workings at the 700-foot level; (6) plan of underground workings of the 800-foot level

Witness—E. K. Beaumont, 10 March, 1903.

3. *Q.* These plans show the position of the creep, and are correct plans of the mine? *A.* They were the official plans of the mine at the time of the creep, and at the present time they are correct. [*Witness here explained to the Commission the various sections of the mine, as delineated on the plan. Plans put in, and marked respectively Exhibits Nos. 1 to 6.*]

[Witness left.]

William Edward Wainwright, called in, sworn, and examined:—

4. *Commissioner.* *Q.* What is your position? *A.* I am surface manager of the South Mine.
5. *Q.* Do you produce certain plans? *A.* I produce plans showing: (1) sections and plan of underground workings in the South Mine near the Central boundary; and (2) plan of underground workings in the South Mine near the Central boundary, showing the sets affected by the creep of October, 1902.

[Witness left.]

Albert William Stohr, called in, sworn, and examined:—

6. *Commissioner.* *Q.* What are you? *A.* I am mining surveyor at the South Mine.
7. *Q.* Certain plans have been produced, which I understand have been made by you? *A.* Yes.
8. *Q.* Are these correct plans of the South Mine, showing the workings at the time of the late accident of October last year? *A.* They are. [*Plans put in, and marked Exhibits Nos. 7 and 8.*]

[Witness left.]

The Royal Commissioner stated that he would visit the Central Mine at 12 noon, and at 9 a.m. on Wednesday he would visit the South Mine, and would commence the taking of evidence on Wednesday, the 11th instant, at 2:30 p.m.

[The Commission then adjourned till 2:30 p.m. on Wednesday, 11th March, 1903.]

WEDNESDAY, 11 MARCH, 1903.

[The Commission sat in the Town Hall, Broken Hill, at 2:30 p.m.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
Broken Hill, Royal Commissioner.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Commissioner: There are several reports and some correspondence on the subject of the accident, which Mr. Slee will put in. The papers I refer to are those which were placed before Parliament.

Mr. Slee: I produce a copy of my report to the Under Secretary for Mines and Agriculture, dated the 15th December, 1902, on the accident which occurred in the Central Mine on the 8th October, 1902, together with the documents referred to therein. [*Report put in, marked Exhibit No. 9.*] I also produce a diagram showing the death-rates from accidents in and about metalliferous mines from 1890 to 1902. [*Diagram put in, and marked Exhibit No. 10.*] I also produce a table showing the fatal and serious accidents in the metalliferous mines for New South Wales for the last twelve years from 1891 to 1902 inclusive. [*Table put in, and marked Exhibit No. 11.*]

Joseph Abraham Lyons called in, sworn, and examined:—

9. *Commissioner.* *Q.* What is your full name? *A.* Joseph Abraham Lyons.
10. *Q.* You are a miner, living in Broken Hill? *A.* I am a mullocker. I have been mining. I have been working at the Central Mine for the last six months.
11. *Q.* In the month of October last year you were employed in the Central Mine? *A.* Yes.
12. *Q.* How long have you been working in mines;—what experience have you had? *A.* I have been working four years and six months in the Central Mine.
13. *Q.* What work were you doing in the Central Mine? *A.* I was filling trucks, mullocking, spawling, and I have also been mining.
14. *Q.* On what level were you working on the 8th day of October last? *A.* I was working on the 500-foot level.
15. *Q.* Who were with you? *A.* Thomas Jordan and Leopold Campbell.
16. *Q.* What shift were you on? *A.* I was on the night shift.
17. *Q.* At about what time did this creep occur? *A.* At about 3 o'clock; I could not say exactly; but I think it was about 3 o'clock in the morning.
18. *Q.* Where were you at the time the creep occurred? *A.* I was waiting for them to come up with their full trucks. We were trucking from the mullock pass. I brought down my full truck, and was returning, and I was waiting for them to come along with their full trucks. I was waiting for about ten minutes, and as they did not come, I thought it was very strange that they were so long. I went up to the mullock chute, and I found one full truck and one empty truck there. They were mullocking about ten sets from the 500-foot level. I sang out, but they could not have heard me, as the mullock was coming down the pass like a hurricane, and timber. I was covered in dust, and could not see, and I caught the rails, and

ran

ran along as far as I could. On the Saturday before this, Crimp, the mullock boss, said to me and Campbell and Jordan, "We want that mullock-pass run." I refused to go there on the 3rd October; I refused again on the 4th October, and I refused on the 6th October. I would not go to work because I was frightened to go out to the chute. On the 6th October I lost a shift because I was frightened. On Tuesday night, the 8th October, the night of the accident, Jordan and Campbell were sitting on the tool-box, and Cooley was there, and he said, "You will have to go down and run the chute." I said, "No; I don't care much for the ground at all." I said, "That ground is bad, and the bottom has been shifting; it will start all the country up to the South boundary." He said, "What do you know about it?" I said, "I am an experienced miner, and I know all about it." He was only the mullock boss, and knows nothing about practical mining. During the thirteen years I have been underground I have seen a lot. I said, "I have worked ten years underground, and I am not going to run that chute." He said, "If you don't, you had better go up the shaft." I said, "No; in the morning you can report me to the Manager; then I am going home; but I will finish my shift."

19. Q. This was on the 8th that Cooley spoke to you? A. No; it was Crimp, the mullock boss.
20. Q. Then you did not go up and work the chute that night? A. No, I did not.
21. Q. Did anybody go up the chute that night? A. Two men went up the chute.
22. Q. You would not go up the chute, and they did go? A. Yes.
23. Q. Did you see them go up? A. Yes; I was trucking from there—one full and one empty truck—and I heard the stuff coming down.
24. Q. At about 3 o'clock you came back, and found that they had gone up? A. Yes; I was standing waiting for them.
25. Q. How long were you standing before the creep took place? A. It was at a quarter to 3.
26. Q. How long after that was it when you heard the creep take place? A. It must have been ten minutes. The wind was blowing from the B 5, and when I came back the whole place was full up with dirt.
27. Q. Where were you when this took place? A. I was under the chute.
28. Q. Did the crush blow out your light? A. Yes, it blew out my light, and I was left in darkness. I left my truck under the chute, and took hold of the rails and crawled back to the north boundary.
29. Q. What had become of Crimp at this time? A. He was at the 700 foot level. After he spoke to me he went down to the 700-foot level. Another thing I have to say: I told Davis that there was a crack in the A 4 stope, where they had taken the pillar away between the A 4 and A 5 stopes. He said, "If we take this pillar away, the two boundaries will come together." He said, "It must not be taken away." I pointed out to him the crack, and I put a wedge in it; and when I came again in the morning it was quite loose. He reported it to Martin, the timber boss. I heard the late Mr. Rowe say to Martin that the pillar was not to come out, for if it was taken out the two walls would come together. When Mr. Rowe died they took the pillar away. These pillars are at the 400 foot, 500-foot, and 600-foot levels, and they have taken it away.
30. *Mr. Hall.*] Q. That is to say, it has been taken away at the 500-foot level, but not at all three levels? A. No, only at the 500-foot level.
31. *Commissioner.*] Q. And, in your opinion, this part of the mine was unsafe to work in on the 2nd October? A. Yes; I reported it.
32. Q. Who did you report it to? A. To the mullock boss, Crimp. I will tell you this: if I report to the Manager or to the shift boss, I would get the sack; any man knows that. If the men report dangerous ground they get the sack straight out, and a good many men with large families cannot afford to do that.
33. *Mr. Wise.*] Q. You were working at the B 5 chute for twelve months? A. Eleven months.
34. Q. Your duties were to empty the chute? A. To empty the chute and go up and run it.
35. Q. When it was empty you had to go up to fill it? A. Yes.
36. Q. You had to go up how many sets? A. About ten sets.
37. Q. Was it good road? A. No.
38. Q. Up the stope? A. All the timber was smashed. We had to go about twenty-five sets on hands and knees.
39. Q. Was it usual for you to go to these places by yourself? A. No; I went by myself once, but Martin and Crimp said it was dangerous, and I was always to take a man with me.
40. Q. Could one man have run the chute himself? A. Yes.
41. Q. According to that, then, the other man was sent with you on account of it being dangerous? A. Yes, he was to stay with me.
42. Q. How had you to run that chute? A. I had to lie on my side and force the mullock down.
43. Q. If it had burst, then, you would have been smothered? A. Yes.
44. Q. What was the drive like? A. The drive was coming down all the time, and in that drive there was no mullocking, and there was no foundation under the timber. It was a wide, open drive.
45. Q. Can you tell me where this pillar was? A. In A 2.
46. Q. At the 500-foot level? A. Yes; they had taken twenty-five sets away from it.
47. Q. How far from the level? A. From the old shaft, B 5, A 1, and A 2; it was about three sets from the shaft.
48. Q. That pillar you were speaking about was directly under B 5? A. No, just under the centre.
49. Q. Do you remember the 25th September? A. Yes.
50. Q. Did you and your mate go up to A 2 stope on duty? A. Yes; I went up with Fred Davis, and I said to him, "If that comes, where will we be?"
51. Q. Did you notice anything strange? A. Yes; the cap was broken.
52. Q. Was the ground broken? A. Yes; that is the crack I just referred to now—the one I put the wedge in.
53. Q. Did you put a wedge in that crack? A. Yes, I put a 10 in. x 2 in. Davis left me, and I put a 10 in. x 10 in. in it.
54. Q. Do you remember September 29th? A. Yes.
55. Q. Two days after that, did you show this crack to Mr. Crimp? A. Yes, I did, and he said to me, "That is not fit for a dog to crawl in."
56. Q. Did he say he reported it to the Manager? A. Yes; he said he could do nothing.
57. Q. Did he report it to Mr. Hebbard or Mr. Dawe? A. He said to the Manager, or the timber boss; I do not know which one.
58. Q. Did he say he had reported it? A. Yes; he said he had reported it twenty times.
59. Q. And he asked you to go and run that chute that day? A. Yes.

Witness—J. A. Lyons, 11 March, 1903.

60. Q. What did you say? A. I said, "No, I refuse to go." I asked him for a shift three days before the accident. I refused to go into the chute.
61. Q. Did he say to you, "We will go up to-day"? A. Yes; we went up that day, and then he said it was not fit for a dog to crawl in. He ran the chute, and I was watching him.
62. Q. When he started it, what happened? A. We were nearly smothered.
63. Q. Was he very frightened? A. Yes; he knocked the top of his head as he came down. He ran against a 10 x 10 when he was running on his hands and knees.
64. Q. You remember the 3rd October, when Crimp spoke to you with Martin? A. Yes.
65. Q. Who is Martin? A. He is the timber boss.
66. Q. Did Crimp give you any orders as to what you were to do when the chute was empty? A. He said I was to go and find another man and run it.
67. Q. That was on the 3rd October? A. I refused to go up on the Saturday, on the Saturday night, on the Sunday, on the Monday, and again on the Tuesday I refused to go up. That was the time of the accident.
68. Q. What was the first day you absolutely refused to go up that mullock pass? A. On the Saturday.
69. Q. That would be about the 3rd or 4th October? A. Yes, about the 3rd or 4th October.
70. Q. Did you refuse to go up on the 3rd October? A. Yes.
71. Q. Did he ask you why you refused to go? A. Yes; I told him because the ground was bad.
72. Q. Did you give him that as a reason? A. Yes; I said it was not fit for anybody to go up.
73. Q. On the 5th October he came down and gave you orders; you were then at B5 trucking out;—he told you when the chute was empty you were to go and run it? A. Yes; I said, "Go yourself; I will not go." He said, "Some of you will have to run it."
74. Q. Did Jordan or Campbell ask your advice about that chute, whether it was dangerous or safe;—did they ask you if it was safe or too dangerous to go into? A. Yes.
75. Q. Did they ask you if it was dangerous? A. I told them the ground was dangerous, and they should not go up there.
76. Q. On the morning of the accident—on the Monday morning—Crimp came down and asked you what was your tally? A. Yes; I said, "Thirty-five trucks." He said, "Are you mad?" I said, "Well, I am not going up to run the chute."
77. Q. You were filling the trucks at the chute, and he told you to go up and fill the chute again, and you refused? A. Yes.
78. Q. Have you ever seen Mr. Hebbard, the General Manager, at that slide chute? A. I did not.
79. Q. Have you ever seen him at B 5 at the level? A. I have seen him walking about the level; but I never saw him at the chute.
80. Q. Did you see Mr. Dawe at the slide chute? A. No.
81. Q. Not for the whole twelve months? A. No; I never saw him at the slide chute.
82. Q. Do you know Mr. Godfrey, the Mining Inspector? A. Yes.
83. Q. Did you see him at the B 5 chute? A. No, not over at the slide.
84. Q. Did you ever see Mr. Milne there? A. No, I never saw him there. I have seen them walking about the main drive.
85. *Mr. Hall.* Q. You said you had thirteen years' experience of mining? A. I have been ten years underground.
86. Q. How long have you had experience as a miner? A. Six months in the Central Mine cutting a drive from A 2 to A 4—last year.
87. Q. That is, last year? A. Yes. I broke my leg on the 27th August last year, and since that I had to go to mullocking.
88. Q. On the 27th August last year you broke your leg while engaged in mining? A. Yes.
89. Q. After the 27th August, when did you go back to the mine to work again? A. At the end of October; I could not tell you the exact date.
90. Q. Try and remember;—can you tell me when you went back to work after having broken your leg? A. No; I cannot tell you the date.
91. Q. Does it not seem strange that you cannot tell me the date when you went back to the mine; yet, at the same time, you can tell me the dates and specific conversations which you say took place? A. The time I broke my leg was so long ago.
92. Q. It was on the 24th August last year that you broke your leg; now, can you tell me when you went back to work? A. No; I cannot tell exactly—in October some time.
93. Q. What work had you been doing from the time you went back to work in October up to the time of the accident? A. Mullocking, and after that I was mining.
94. Q. Do I understand that you were working at this mullock shaft for about ten or eleven months? A. Yes.
95. Q. That is correct, that you were working for ten or eleven months in the vicinity of the mullock-shaft, close by it, barring down the chute and trucking from it? A. Yes.
96. Q. For some eleven months before the accident you were working there? A. It was between eleven and twelve months.
97. Q. Trucking from the chute and barring down in the chute? A. Yes.
98. Q. During the whole of that time was Crimp the mullock boss? A. Yes.
99. Q. When was it you first complained to Crimp that this mullock pass was dangerous? A. About six or seven months ago. I reported it hundreds of times. I reported it day by day. I said to him, "Look at this." I reported it to Crimp and to Martin.
100. Q. You thought it was dangerous, and when he told you it was not fit for a dog to crawl in, why did you not report it to Crimp's superiors or to the Mining Inspectors? A. I would not like to report to the General Manager. I would get the "sack" straight off; and when a man has a family to keep he cannot do that. Many an accident has been caused, and men are afraid to speak. I am not afraid to speak.
101. Q. That is your reason? A. Yes, they are frightened of getting the "sack."
102. Q. After this accident occurred, you were shifted into stope C 3;—you declined to go there? A. Yes.
103. Q. You went to Mr. Hebbard and to Mr. Dawe;—were you "sacked"? A. No.
104. Q. You told me your reason for not reporting to the General Manager or the Mining Inspectors when Crimp took no notice of your reports was that you were frightened of getting the "sack"; yet on the only occasion

occasion when you did go to the General Manager and Mr. Dawe were you "sacked?" A. No; they say, "That man has been at the accident, and there will be some evidence to give, and we will give him some work to do." That is why I was not "sacked."

105. Q. You say your only reason for not reporting to the General Manager was that you were afraid of getting the "sack"; yet on the only occasion when you did report to him you did not get the "sack";—is that not so? A. Yes; they knew there would be some evidence to give, and that is why they kept me there.

106. Q. On the morning of the accident, at about a quarter to 3, you were at the chute? A. I did not say anything of the kind. I said I was waiting ten minutes at the chute.

107. Q. Were the two deceased running the trucks from the chute to where you were waiting for them? A. Yes.

108. Q. Then, when you waited ten minutes, and they did not arrive, did you go to the chute with the truck, or by yourself? A. By myself. I left my truck on the line, and went by myself.

109. Q. Did you wait at the shaft, or call out to the men? A. When I got to the shaft I took the full truck.

110. Q. Did it not strike you as strange that there should be a full truck there? A. There was one full and one empty. I took the full one, and I started yelling out to them. I was calling about five minutes.

111. Q. You had the chute open for about five minutes, and were calling out to them;—did you get any reply? A. It was impossible for them to hear me.

112. Q. If it was impossible for them to hear you, why did you remain there calling out for five minutes? A. The earth and timbers were running through the stope like thunder.

113. Q. What was the first indication you got that the creep had occurred? A. The timbers were cracking, and the rats were running in every direction. There were thousands of rats running all over the drive.

114. Q. You saw thousands of rats running past you? A. Hundreds of rats.

115. Q. You saw them all through the drive? A. Yes.

116. Q. What time did you see the rats? A. The shift before. At the beginning of the shift.

117. Q. At the beginning of the shift you noticed hundreds of rats about;—they were running round in such numbers that anyone could notice them? A. Yes, if they were in that direction.

118. Q. What was the first indication you got of the creep occurring? A. The timbers over my head were smashing.

119. Q. I am referring now to the actual creep which took place about 3 o'clock in the morning;—what was the first indication you got that the creep had taken place? A. B 5 chute started it.

120. Q. What was the indication you got? A. B 5 chute burst and that started the creep.

121. Q. Did you see it bursting? A. I saw the stuff coming from the chute—the timber bursting, and the stuff coming down; then my light blew out. This was while I was standing at B 5 chute.

122. Q. I think you mentioned something about lightning? A. Yes.

123. Q. How long did it last? A. It flashed and went away.

124. *Commissioner.*] Q. It was just the ordinary duration of lightning? A. Yes; flashes of lightning all over the drive.

125. *Mr. Hall.*] Q. Did the flashes last about three minutes? A. There were three or four, one after another, all through the drive. When I got away from the danger I saw the lightning was flashing all over the drive. It was continuous flashes one after another.

126. Q. You told me that on the morning of the accident, Crimp told you to go into the mullock shaft and you refused to go; he told you you would have to go, and run it;—what time was this? A. About half-past 2. Between 2 and half past 2. Very likely about half past 2.

127. Q. What date was it when you made this complaint to Crimp, when you said Cooley was present;—did he hear you make the complaint to Crimp? A. I do not know whether he heard it or not. He was about three sets away. He was hanging his coat up at the time.

128. Q. I understood you all three were present when you made the complaint? A. Cooley had nothing to do with the B 3 chute. He was in the same drive.

129. Q. On the 8th October last the two deceased, you, and Cooley were together and Crimp told you to go and run the chute, and you told him the ground was bad;—is that right? A. Yes.

130. Q. When he told you to go up and run the chute, where were you? A. We were sitting at the tool box, about two or three sets away—between 16 and 18 feet away.

131. Q. Did you whisper to Crimp, or did you speak in an ordinary tone of voice? A. I spoke as loud as I am speaking here to-day. He must have heard me. I was very nervous.

132. Q. You did not consider yourself safe while you were working there? A. I never consider myself safe any time I go underground. I never do consider myself safe, and no man can consider himself safe underground.

133. Q. You mentioned A 2, where you say you put a wedge in the crack;—how far was that from the chute? A. About 50 or 55 feet.

134. Q. Not 75 or 80 feet? A. Well, I have not put a tape measure over it.

135. Q. How far was the tool-box from the chute you were running? A. It was just beside it—quite close to it.

136. Q. Would it be possible for anything to fall at the top without the men at the tool-box knowing anything about it? A. There was no tool man there in the night time. The tool men are not on the night shift—no shift boss either. There was only the mullock boss, an inexperienced man.

137. Q. You said this bulk had been falling for some time? A. We had to go ten sets back and run the slide and it was ten sets high.

138. Q. The tool-men were during the day shift;—could anything have fallen during the day time while they were there without their knowing it? A. Yes, on the day shift.

139. *Mr. Edwards.*] Q. Where was this bulk which you say had been giving for so long? A. At B 5, ten sets above the mine level.

140. Q. What was the bulk resting on? A. On three sets of timber.

141. Q. How long had it been giving? A. For three or four days before the creep, and I reported it.

142. Q. You say you reported it? A. Yes; I reported it to Crimp and Martin.

143. Q. Did you see any of the other shift bosses? A. No, I did not see any of them.

144. Q. You have not had much experience as a miner, only at mullocking;—you have only had six months experience as a miner? A. Yes.

Witness—J. A. Lyon, 11 March, 1903.

145. Q. At this particular pillar which you have spoken of, when you went there twelve months ago, what was the width of this pillar? A. About twelve sets.
146. Q. And what was its width at the time the creep occurred? A. I could not say. I know for a fact they had been breaking it up for twenty-five sets—twenty-five sets all round it; twenty-five sets altogether—three sets high and all round it.
147. Q. That was at the 500-foot level? A. Yes.
148. Q. Do you know where Kintore shaft is? A. Yes.
149. Q. How far from the south boundary of the mine is it? A. Between 50 and 60 feet.
150. Q. You said that Rowe, when he was underground manager, said something about that pillar not being interfered with;—who was present when he said that? A. I was,—and Martin.
151. Q. Martin is working at the Central Mine now? A. Yes.
152. Q. Can you give us Rowe's words? A. They were asking what about the pillar, and Rowe said "That pillar was not to be touched; it is holding the two boundaries." He said "That is the only one, and if we take it away the place will all come together—the South boundary and the Central boundary."
153. Q. He said it would come together if the pillar was taken away? A. Yes.
154. Q. Do you remember how long ago that was? A. About one year and ten months ago, or two years ago.
155. Q. How long has Mr. Rowe been dead now? A. About eleven or twelve months.
156. Q. Well, that was said less than a year before he died? A. Yes.
157. Q. Do you remember when the pillar was first interfered with? A. Two or three months after Rowe died.
158. Q. You were on the level when this creep took place? A. Yes.
159. Q. Where was the first movement you noticed? A. At B 5 chute.
160. Q. Was it up or down? A. On the same level with me.
161. Q. Where did you see the first movement? A. The dirt was hitting me on the face, and I was in the dark. I caught hold of the two rails and crawled out.
162. Q. You did not see the stuff disappearing—you saw it coming from above? A. Yes.
163. Q. For what your opinion is worth, what do you attribute this creep to;—what do you consider was the cause of it? A. In my opinion, the creep was caused by taking the pillar away and from the breaking of the timbers; I think B 5 chute started it.
164. Q. How could the chute affect it? A. The chute is on the swing, and when the stuff came down it shook the timbers and that started it. When you are running the chute it is shaking away from the timbers. This chute had no door, and as the mullock came tumbling down the chute it started the timbers.
165. Q. You attribute it to the mullock coming down the chute and shaking the timber off the bulk? A. Yes.
166. Q. How big was the crack when you first put the wedge in it? A. I put in a 10 x 2, the bottom was half-an-inch wedge shape and I drove it in. It was going down all the time.
167. Q. How high was it? A. About seven or eight sets high.
168. Q. This crack was seven or eight sets up from the level? A. Yes.
169. Q. The slide was ten sets up from the level? A. Yes.
170. Q. Was there any mining operations going on when the breakaway occurred? A. No, but there had been.
171. Q. They were working up to the time of the break on this pillar? A. Yes.
172. Q. Had you been on the lower levels? A. Yes, on the 600-foot and 700-foot levels.
173. Q. What is the condition of the pillars there? A. They had been taking out the pillar A 4 on the 600-foot level.
174. Q. At the 600-foot level A 4 had been taken away? A. It had been taken away some time ago.
175. Q. During Mr. Rowe's lifetime, or after his death? A. After his death.
176. Q. When were you down last—that is before the creep? A. About seven or eight months before the creep.
177. Q. Were you ever on the 700-foot level? A. Yes.
178. Q. Is there any pillar there? A. Yes.
179. Q. It is taken away altogether at the 500-foot level—twenty-five sets? A. Yes.
180. Q. Did anybody else make any remark about this pillar being cut? A. No, not that I know of.
181. Q. Where is Davis now? A. He is working at the Central Mine now.
182. Q. What is Davis doing? A. He is driving horses—mullocking.
183. Q. He was never a miner? A. I do not know; he has been about thirteen months in the mine.
184. Q. Do you know any other man named Davis? A. No.
185. *Mr. Milne, Mining Inspector.* Q. You are a member of the Amalgamated Miners' Association? A. Yes.
186. Q. You have a complaint book in the office, have you not? A. Yes.
187. Q. A book in which you are supposed to lodge any complaints about unsafe workings? A. Yes.
188. Q. Did you ever lodge a complaint in that book about this particular place? A. No.
189. Q. You have a complaint book there, in which you are supposed to enter up any complaints about unsafe workings, yet you never lodged any complaint? A. I saw it; but I never read the rules.
190. Q. Did you ever mention it to the Secretary? A. No.
191. Q. Do you not think you should have mentioned it to the Secretary? A. I never thought such a thing was going to happen.
192. Q. You say you knew the place was dangerous; you were afraid of the bosses, fearing you would get the "sack"; you would not come to us, probably for the same reason; but you knew perfectly well the mine boss could not "sack" your Secretary, yet you never lodged any complaint with him? A. I never thought of that.
193. Q. You never made a complaint? A. No.
194. *Mr. Wise.* Q. It was only from the 25th September to the 8th October that you knew that place was dangerous? A. Yes; I had not time to go to the Secretary.
195. Q. I do not know if you stated there were any other bosses there? A. There was only the mullock boss. There was no shift boss.

196. *Q.* Was every night shift the same way? *A.* Yes; since Ellis left, they have not put on a shift boss.
 197. *Mr. Hall.] Q.* Do I understand that you only considered this unsafe from the 25th September to the 8th October? *A.* Yes.
 198. *Mr. Edwards.] Q.* Did you make any complaint to anybody? *A.* I complained to my boss.
 199. *Mr. Hall.] Q.* You never complained to Mr. Rowe or to Mr. Hibberd? *A.* No; Mr. Martin is the timber boss.
 200. *Mr. Slee.] Q.* You say you were on night shift? *A.* No; I have worked night shift, afternoon shift, and day shift.
 201. *Q.* Would it not be possible that they might be there and you not see them? *A.* I said I did not see them.
 202. *Q.* The Managers and the Mining Inspectors might be there and you not see them? *A.* That is so.

[Witness left.]

Ernest Aubrey Reid, called in, sworn, and examined:—

203. *Commissioner.] Q.* You are a trucker, living in Broken Hill? *A.* Yes.
 204. *Q.* And you are working in the Central Mine? *A.* Yes.
 205. *Q.* How long have you been working there? *A.* Two years.
 206. *Q.* In October last you were employed on the 500-foot level? *A.* Yes.
 207. *Q.* Who were your mates? *A.* Lyons and Campbell.
 208. *Q.* And Jordan? *A.* At odd times he was.
 209. *Q.* You were trucking from the chute there? *A.* Yes, from B 5 to B 3, at the 500-foot level.
 210. *Q.* Was there any special difficulty in connection with the chute;—was it hung up? *A.* The only difficulty was in running the chute. When it was empty, you had to run it.
 211. *Q.* How far had you to go to start this mullock? *A.* We had to walk about 50 yards, and go up about ten or eleven ladders, and then crawl another 50 yards.
 212. *Q.* What sort of road was it? *A.* Going up the ladders, it was all right; it was rather dangerous getting to the chute from the top of the ladders.
 213. *Q.* In what way? *A.* The ground was cracked about and hanging.
 214. *Q.* Could you walk from the top of the ladders? *A.* You could walk part of the way, and crawl the rest.
 215. *Q.* When you got to the chute, how would you get the stuff down? *A.* Lie down in the chute.
 216. *Q.* While you were there, did you notice any movement amongst the timbers at any time? *A.* No; I could not say I did.
 217. *Q.* When were you up at this place immediately prior to the 8th October? *A.* About a fortnight before the creep, when I was on the last night shift.
 218. *Q.* Did you hear anyone complain that this particular place was dangerous? *A.* Yes, to one another. We always complained to one another about the place being unsafe.
 219. *Q.* Did you ever complain to the bosses? *A.* No, I did not personally.
 220. *Q.* Did you hear anyone making a complaint? *A.* No.
 221. *Q.* How far from the bottom of the chute had you to truck to the C 2 chute? *A.* About 150 yards.
 222. *Q.* Would a man wheeling empty his truck before coming back? *A.* Yes; he took it out to the winze, and came back in order to fill it again.
 223. *Q.* Yesterday, when we were there, we noticed there had been a full truck left;—would that be usual? *A.* Very often, at the end of a shift, a truck might be left, and the next man would take it along.
 224. *Q.* This one was about 70 feet back from the chute? *A.* That is quite likely. A truck might be left half-way, if it was change of shift time.
 225. *Q.* But this accident happened at 3 o'clock? *A.* It would be an unusual thing to find a full truck on the line at that time.
 226. *Q.* Have you been through the levels above the 600-foot? *A.* Yes; I have been down from the 500-foot level down to the 600 foot level.
 227. *Q.* Did you notice anything dangerous in the ground when coming down? *A.* Yes, it was rather broken and cracked about. The worst would be between the 400 and 500-foot.
 228. *Q.* As far as you could see, was the ground filled;—were there any empty places there? *A.* No; I cannot remember.
 229. *Q.* Was it near the boundary? *A.* It was right on the boundary. The ground was all cracked, and hanging against the South Mine.
 230. *Q.* Which was the dangerous side—the Central or the South Mine? *A.* I should say the South, because I knew the boundary well.
 231. *Q.* How far was the tip of the chute from the boundary? *A.* About 150 or 200 yards.
 232. *Q.* Yet you did not consider it too safe at the top of the slide? *A.* I did not.
 233. *Mr. Wise.] Q.* How long had you been connected with the night shift? *A.* Every night shift for eighteen months prior to the accident.
 234. *Q.* Did you ever see Mr. Hebbard at the slide chute? *A.* No.
 235. *Q.* Did you ever see Mr. Dawe? *A.* No.
 236. *Q.* You were working three shifts there? *A.* Yes.
 237. *Q.* Previous to that, were you working day and afternoon shifts? *A.* Yes.
 238. *Q.* Have you ever seen Mr. Milne or Mr. Godfrey at the chute? *A.* No.
 239. *Q.* Did you ever see them examine the slide chute or the slope at all? *A.* No.
 240. *Q.* On the morning of the accident, who was in charge of the truckers? *A.* I could not say, because I was not there—not on the day the accident occurred.
 241. *Q.* I understood you to say you were working with Lyons and Jordan? *A.* No; I was not on the job at the time the accident happened.
 242. *Q.* On 7th March last did Mr. Hebbard send for you to visit him at his office? *A.* No.
 243. *Mr. Hall.] Q.* You have been working for some time in this mine? *A.* Yes.
 244. *Q.* You never heard any of the men complain to Crimp? *A.* No.
 245. *Q.* You were a mate of Lyons? *A.* Yes.
 246. *Q.* Did you hear Lyons complain to Crimp? *A.* I have not heard him complain to the bosses.

Witness—E. A. Reid, 11 March, 1903.

247. Q. Do you know if Crimp is a careful and cautious man? A. I cannot say he is too cautious or careful, in my opinion.
248. Q. Have you ever complained to him about anything in the mine? A. Yes; in different parts of the mine. Not of this particular part of the mine.
249. Q. Now, so far as this mine is concerned, it is pretty well mullocked up? A. Yes.
250. Q. So far as your experience shows you, is it more for the safety of the miners to run it open or to timber? A. I understand the mullock is put in to keep the ground up.
251. Q. Does your experience show you that that is correct? A. Yes.
252. Q. You have been down from the 500-foot to the 600-foot, and from the 400-foot to the 500-foot? A. Yes.
253. Q. How long altogether have you been working in the Central Mine? A. Two years last February.
254. Mr. Edwards.] Q. You have been working on this particular level all the time? A. No.
255. Q. You were working there while Mr. Rowe was underground manager? A. Yes.
256. Q. Do you know the pillar where the chute is? A. Yes.
257. Q. Has any alteration taken place in that before the time of the creep, and when Mr. Rowe was Manager? A. No; as far as I know, it was the same.
258. Q. Was any mining done about it? A. It was already worked between the 400-foot and 500-foot levels.
259. Q. What sort of work? A. Tonnage work.
260. Q. They were stripping the pillar? A. They were in an open stope.
261. Q. Were they stoping at the pillar? A. They were stoping between that chute and the South Mine boundary.
262. Q. When were they doing this? A. I can hardly remember.
263. Q. During the time Mr. Rowe was Manager? A. I cannot say that I saw that there then.
264. Q. Since his death? A. Yes.
265. Q. How long ago would you say they were last working it? A. About eight or nine months ago.
266. Q. Have any men been working there since? A. No.
267. Q. That is between the 400 and 500 foot levels? A. Yes.
268. Q. Have you seen any working between the 500 and 600-foot levels? A. No.
269. Q. There is no alteration there? A. No.
270. Q. Did you ever go into it? A. Yes.
271. Q. I suppose it might have been cut away for all you know? A. It might have been.
272. Q. Did you ever see anybody working there? A. I did, between the 400 and 500-foot levels, about eight or nine months ago.
273. Q. Not any later than that? A. No.
274. Q. Who were working there, do you know? A. No.
275. Q. Who was trucking for them? A. I do not know; I was on mullock.
276. Q. Do you know how many sets they took out? A. I could not tell you.
277. Q. The dangerous part of the pillar was towards the South? A. Yes, as far as my knowledge of it goes.
278. Q. That is where the men were working? A. Yes.
279. Q. Have you any mining experience at all? A. No; I am not a miner.
280. Mr. Wise.] Q. Was one man sufficient to run that chute and slide? A. One was sufficient, but it was not considered safe.
281. Q. Who did not consider it safe? A. I do not know. It was well known to all of us. The man was always told to go back and get another man.
282. Q. It was customary to take two because it was dangerous? A. Yes.
283. Q. How long was that practice carried on? A. Since I have been in the mine.
284. Q. You had to lie on your side in the chute? A. Yes.
285. Q. And if it were to burst you could not get away? A. You would have to be pretty lively.
286. Mr. Hall.] Q. You said the dangerous part of the pillar was towards the south boundary? A. Yes.
287. Q. Not only towards the South, but on the South boundary? A. Yes.
288. Mr. Edwards.] Q. You are working in the Central Mine? A. Yes.

[Witness left.]

[The Commission adjourned till 10:30 a.m., on Thursday, 12 March, 1903.]

THURSDAY, 12 MARCH, 1903.

[The Commission sat in the Town Hall, Broken Hill, at 10:30 a.m.]

Present:—

ERNEST LESLIE MAITLAND, ESQ., POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Albert George Crimp, called in, sworn, and examined:—

289. Commissioner.] Q. You are mullock boss in the Central Mine? A. Yes.
290. Q. How long have you been in that position? A. Between six and seven years.
291. Q. Have you had any previous experience? A. Yes; thirteen years in the Central Mine altogether from the brace to the face, also on the plats and on timbering.
292. Q. Have you done any mining work? A. Yes; I worked in the face at various times.
293. Q. Had you any experience prior to coming to Broken Hill? A. No.

294. *Q.* What are your duties as mullock-hoss? *A.* I take charge of the shift and see that all the men are at their stations and working in the best situations in the interest of the Company, and to my own satisfaction.
295. *Q.* Have you charge of more than one level? *A.* I had charge of all the levels where the men were working.
296. *Q.* That is, four levels? *A.* From the 500-foot to the 700-foot, and sometimes from the 500-foot to the 800-foot levels.
297. *Q.* About the latter end of September, what levels were you in charge of? *A.* From the 400-foot to the 700-foot levels.
298. *Q.* You had Joseph Lyons, Campbell, and Jordan working with you? *A.* Yes.
299. *Q.* Was there anyone else on the 500-foot level? *A.* Five men besides myself—Jordan, Campbell, Lyons, Brokenshare, Frisk, Burkett, and Stackpool.
300. *Q.* Was there a man named Cooley working there? *A.* Yes, Cooley was there too; that is eight.
301. *Q.* Was Reid there? *A.* No; he was not on the shift with me.
302. *Q.* I am asking you about the men on the 500-foot level at the end of September? *A.* Neither of them were there then. These men were there on the 8th October.
303. *Q.* In September, Lyons was working there also;—was he not? *A.* Yes.
304. *Q.* On the 500-foot level? *A.* Yes, I think so; but I could not say for certain whether he was or not.
305. *Q.* You know this pass where the accident occurred;—what was the name of it? *A.* B 5 winze.
306. *Q.* Had you some trouble with it? *A.* No; I never had any trouble with the winze. I have gone up and run it.
307. *Q.* It got caught up sometimes? *A.* Yes.
308. *Q.* Where did it get caught up? *A.* Between the 500-foot and 400-foot—up about 70 feet.
309. *Q.* How did you go up to this particular place? *A.* By going along the main cross-cut to the south boundary of A 2 and A 3 stope.
310. *Q.* Was it a good track? *A.* Yes.
311. *Q.* All the way?
312. *Q.* Was there a ladder road there? *A.* Yes; a ladder road all the way to the top of the stope, and from the chute back to the ladder it would be about twenty-four sets.
313. *Q.* How did they get along? *A.* From the ladder way there is the mullock stope A 2 on the west side, and a pillar of ground on the eastern side. The timber of the mullock stope on the west was blocked back to this pillar for about sixteen sets, and they went between this pillar and the stope.
314. *Q.* Could they walk along all the way? *A.* Yes. They might have to stoop occasionally; the blocking might be a bit low in some places.
315. *Q.* When they got to the stope how did they set the chute going? *A.* They used to dip it if required—if it would not slide. The slide led down and took across about two sets west—that is, from the winze at the 400-foot level.
316. *Q.* Would the men have to lie down to start it? *A.* Not at all times. They could kneel. The stope was half mullocked-up, and both sides of the top of the sets were half filled up—both sides, east and west.
317. *Q.* Lyons was one of the men who were working there in September? *A.* Yes, I believe he was. I know Lyons. He has worked with me about eight months in various parts of the mine.
318. *Q.* Did Lyons at any time tell you that the road was dangerous to the chute? *A.* Never.
319. *Q.* Did he ever refuse to go up on account of its being dangerous? *A.* No; he never was supposed to go up on his own.
320. *Q.* Did one or two men go up? *A.* The instructions to my men were that they were always to have another man with them—not particularly in this chute, but in all such places. They always had to take another man with them. Those were my instructions.
321. *Q.* When were you up to this particular chute? *A.* I have been up at various times.
322. *Q.* What was the latest time before the accident? *A.* I was up on the 7th. I was through there, but I was not called to the chute.
323. *Q.* You said you have set this going on some occasions;—when did you do so before the accident? *A.* If I have seen the downright chute empty I have gone and run it. It was down the track from the 400-foot level; I had to pass by it. That was the road for all the officials of the mine within twenty-four sets of the chute at B 5 winze.
324. *Q.* There was a pillar close to this chute—a pillar of solid ground? *A.* On the north side of it, going to what we call B 5 stope.
325. *Q.* What was the most recent work done about this locality. *A.* Nothing was done on top. The miners were there, but not on the night shift.
326. *Q.* Do you know what mining was done there? *A.* The miners were working in A 2 stope going west; this was about a week previous.
327. *Q.* Have you ever seen any crack in the ground, in the pillar of A 2 stope? *A.* No more than any ordinary crack.
328. *Q.* Was a crack pointed out to you in that locality by anyone? *A.* Never was any crack pointed out to me there.
329. *Q.* I understand that, so far as your knowledge takes you, the stope was perfectly safe? *A.* Perfectly safe.
330. *Q.* Was it safe for these men to go and set the chute running? *A.* They never made any complaint. I have heard them say it was hung up. She used to choke up when she filled up to the sill floor; then they would go and give it a start from the slide that carried it down.
331. *Q.* Did any of the men refuse to go and set this chute running? *A.* No; not at any time. No man ever refused to run that chute while in my charge.
332. *Q.* Where were you at the time of the accident? *A.* At the 700-foot level.
333. *Q.* When did you come up to the 500-foot level after the creep? *A.* On the night of the creep I went from the surface after I gave out the candles. I put the men on to their places. I put some on the plats. Three or four on the 500 did not know their places. The cage was at my disposal. I took the cage and went to the 400, and went back to the B 5 winze and followed up to the 400 level; from there I went down through the A 2 stope to the 500 and went to the tool-box, where I saw Lyons, Jordan, and Campbell. I told

Witness—A. G. Crimp, 12 March, 1933.

told Lyons to truck from the B 5 winze to the B 3 stope at 600. This stope is about three sets under the level of the 500 level. Brokenshare I placed in B 2 cross-cut to fill mullock and truck back. Prisk and Cooley were on the 500-level. Burkett and Stackpool I told to go into C 1 stope at the 500 level. Thornton and Stephens I placed in B 3 stope at the 600 level—about three sets from the 500 level. I instructed them what to do, and when I went down the stope I told them to do some temporary paddocking on the sides before putting the mullock in. Lyons was trucking at the time. Stephens went down to the 600 to get some nails to nail up the paddocking. I left Thornton and went down to the 600, and I met Stephens coming back from the 600 with the nails. This was somewhere about ten minutes past 1, as near as I can judge. From there I went back to C 3 stope on the 600-foot level. I had three men mullocking there, trucking and filling stuff.

334. Q. If these men have ever been working at the 500 it would be well to have their names? A. This night they were at the 600. They were Cambridge, Martin, Symonds; these three were in C 3 stope, at the 600-foot level. From there I went to C 1 at the 600. I had two men working there in C 1 stope.

335. Q. Had they been working on the 500-foot level? A. Yes. Downs and Chilton. At D 3 I had Martin, George Barker, Bartleson, Heberle. On the 700-foot level I had Rowe, A. Crimp, McKeown, Hughes, and Castles. That was twenty-four mullockers and two timber-men—twenty-seven men all told, including myself. Slocum and Prior were the two timber-men.

336. Q. After you gave them instructions what did you do? A. I went to see what they were doing. Two were in the east cross cut and two filling in the north drive at the 700 foot level, and one trucking on the north drive. Rowe was filling in mullock that was tipped from the north drive filling A 2 stope. I went round the 700 foot level and came back again, and I sat down about four sets from Rowe on a 10 x 10 block. While I was sitting there a break away occurred.

337. Q. What time was this? A. Exactly 3 o'clock.

338. Q. In what way did the break-away occur;—in the 700-foot level? A. No, somewhere back south from where I was sitting. I could not say where, from the sound. I reckoned it was between the 600 and 700 levels. I went back and took them to the tool box and said to them, "You stop here till I come back." I took Rowe with me and went out to the south side of the old shaft.

339. Q. You had two shafts? A. Yes, the one we used—this was called the old main shaft.

340. Q. That is north of the old south shaft? A. Yes.

341. Q. Is there any particular name for this shaft, Mr. Hebbard? A. *Mr. Hebbard*: The old main shaft.

342. Q. What did you do then? A. I took Rowe with me and rang the cage to the 700 foot level, and then rang it to the 600, and we then went back in the cross-cut to the B 5 stope. That was as far as I could get. The ground was running and the timberers were talking.

343. *Mr. Hall.*] Q. This was in the B 5 stope? A. Yes, in the old main shaft cross-cut. I went back to get the cage, and Rowe and I went to the 500 foot level. I went back in the cross-cut there as far as I could go.

344. *Commissioner.*] Q. How far was that? A. As far as I could say, to the eastern north drive going south. The ground was tumbling about in the cross cut. I had no way of getting through at the time.

345. Q. Did you find any of the men? A. I did not know anything of the men. I knew I had placed the men to work.

346. Q. You did not do any more then at the 500-foot level? A. No. I went to the 400, and went through the cross-cut as far as where the horses were stabled. I could see the 400-foot stope was down. She was also cracking against the stables, but she was pretty well down by this time. I took the cage and went to the surface. Rowe was with me all the time. I said, "You go for Mr. Dawe." This was at about twenty minutes past 3 o'clock. I took the cage after Rowe went away and went down, and when I got to the 500 I listened to hear if I could hear anything. While I was there I heard somebody at the 600; and when I got to the 600, I found it was Slocum and Prior. I asked them what way they came, and they said through the B 3 eastern drive. I said, "How is it up above? Have you seen any men in the 500?" They said, "Yes, they are all right; but Jordan and Campbell are missing." There were some men at the 700-foot level, and I knew they were safe. I said, "I will go and get them up from the 700 level." They said, "Please yourself; you are boss." I went down to bring the men to the surface from the 700-foot level.

347. Q. Did you hear a noise of any falling? A. I heard a noise which sounded to me like a break-away—continual running of the dirt.

348. Q. What do you mean by a break-away? A. A fall. She went away in one mass, and then started to run.

349. Q. You could have no idea on what level it was on? A. I was about 120 feet from the boundary, and I should say it was between the 600 and 700. I am speaking about the first fall I heard. As far as I could glean by the sound, it appeared to be between the 600 and 700.

350. Q. Did you visit the 500-foot level stope after this? A. Yes, I visited the 500.

351. Q. After you got the men out? A. After I got the 700 foot men out and we got the Kintore shaft to work.

352. Q. What time was that? A. As near as I could guess, it would be about a quarter to 4 o'clock. Then Dawe and I went down to the 500-foot to get the men out from the 500-foot level.

353. Q. Did you make any search for Jordan and Campbell? A. We went round and visited the openings where they were supposed to be. I never saw them after half past 12.

354. Q. Did any of the men tell you where they were at the time of the creep? A. They never told me where they were; I had words with nobody. I saw nobody at the 500 foot level after I first visited it until we went down with Mr. Dawe and the men were taken up.

355. Q. Have you had any conversation with the men who were on the 500-foot level at the time? A. No.

356. Q. Were any of the trucks missing that had been in use at the time? A. Yes; they were supposed to have been using three trucks—Lyons one, Jordan one, and Campbell one.

357. Q. Did you find these trucks after? A. I could not swear if they were the trucks they were using.

358. Q. Did you find a full truck on the 500 foot level? A. No; there were empty trucks at the 500 foot level, but whether they had been used or not I could not say.

359. *Mr. Wise.*] Q. Of the names you have given in of men working with you, have any of them gone to this slide chute to run it? A. Yes.

360. Q. Had Brokenshare run it? A. Not to my knowledge.

361. Q. Prisk? A. Yes.

362. Q. Burkett? A. Yes.

363. Q. Stackpool? A. Not that I am aware of.
364. Q. Cooley? A. Yes.
365. Q. How often? A. Once as far as I know.
366. Q. How long has he been working in the mine? A. I could not say.
367. Q. How long had he been in connection with B 5 chute? A. He was there about one shift. I would not swear whether it was one or two.
368. Q. Did Thornton ever run it? A. No.
369. Q. Stephens? A. No.
370. Q. Martin? A. No.
371. Q. Symonds? A. No.
372. Q. Downs? A. Yes.
373. Q. Chilton? A. I would not swear whether he ran the chute or not.
374. Q. George? A. Not that I know of.
375. Q. Barker? A. Not that I know of.
376. Q. Brokenshare? A. No.
377. Q. Heberle? A. Not that I know of.
378. Q. Rowe? A. Yes.
379. Q. A. Crimp? A. Yes.
380. Q. McKeown? A. Yes.
381. Q. Hughes? A. I could not say about Hughes.
382. Q. Castles? A. He has trucked from the chute, but I would not swear about his running the chute.
383. Q. You said when they went into this slide chute the men could stand up to knock it down;—what position would they be in when they were knocking it down? A. They could be in a kneeling position.
384. Q. Would the men have to lie on their side? A. They had the full width of the set but not in height. It would be his own fault if he did not clear the chute as he went up. It was never full, only on a down-right run. When filling the chute, as she filled back she choked up at the winze going to the 400 level.
385. Q. This is the gangway into the chute? A. Yes; it is a right-of-way.
386. Q. What is the height of the sets? A. The height of the sets would be about 6 feet. The ground came down on a slant. They could walk in—I do not say upright; but they might have to stoop where the timbers were low to get in.
387. Q. When the men went in to run the chute did they have to crawl in? A. No, he could turn round.
388. Q. If half a dozen truckers came here and said there was not room to turn round, would you say they were telling an untruth? A. They would not be telling the truth.
389. Q. It was the night-shift on this occasion? A. Yes.
390. Q. Were you always in charge of the night-shift? A. Yes.
391. Q. Was there any other boss of the night-shift? A. No; not of this particular shift.
392. Q. You sent for the engine-driver;—why? A. Dawe sent for him. I sent to Dawe's house for him.
393. Q. Then who let you down if you had to send for the engine driver? A. I went down by the old main shaft engine. I am talking about the men getting access to the other side. I could not get back from the Kintore shaft to the other shaft.
394. Q. There was an engine-driver on the old main shaft? A. There always is on night shift.
395. Q. You are certain that Lyons never called your attention to a crack on the pillar of ground? A. Never. I went up with Lyons once to run the chute. A piece of 10 x 4 got across the chute in the slide. That is the only time I was ever asked to go to the chute by anybody.
396. Q. Does the same thing occur in other stopes that a man has to get another man to go with him into the stope? A. No man is allowed to work in the stopes single-handed.
397. Q. Does that apply to other stopes? A. Yes.
398. Q. If you wanted a hammer out of a stope, would two men have to go for it? A. No; that is a different thing.
399. Q. Is it not a general rule all over the mine;—if you wanted some tools out of the stope, would it be necessary to send in two men for them? A. They get their tools from the tool box.
400. Q. You must have thought there was some particular danger when you sent two men in? A. The instructions are that no man is to work alone in the stopes.
401. Q. These orders were from head-quarters, then? A. Yes.
402. Q. Did they say why they were issued? A. No.
403. Q. Do you remember when you last ran the chute? A. I could not say. I have often run it when I have been going down; I have run it as I passed through any of the winzes. I have sent the mullock down.
404. Q. Did you assist to run it on the 29th September? A. I could not say.
405. Q. Do you remember yourself and Lyons being there? A. I think once.
406. Q. Did anything happen at that time? A. No.
407. Q. There was no noise of timbers talking? A. No; if I was afraid of it I would not put anybody there to run it.
408. Q. What was the last time you saw Mr. Hebbard at the slide chute? A. Never.
409. Q. And you have been working there in charge of the mullock for six or seven years and have never seen Mr. Hebbard at the slide chute? A. No.
410. Q. Did you ever see Mr. Dawe there? A. Never.
411. *Mr. Hall.*] Q. At the slide chute? A. Yes.
412. *Mr. Wise.*] That is the slide chute where the men were supposed to be.
413. Q. You know Godfrey, the Mine Inspector? A. Yes.
414. Q. Have you ever seen him there? A. No.
415. Q. Milne? A. No.
416. Q. Did you ever see them in the vicinity of the slide chute? A. I have seen them in the stopes and on the sill.
417. Q. In this particular stope, did you ever see them going up this road—either Mr. Hebbard, Mr. Dawe, Mr. Godfrey, or Mr. Milne? A. No.
418. Q. On the Monday previous to the accident, did you go to the truckers to see what their tally was? A. It is usual for me to go to the truckers to see the tally. I have to keep tally of their work at the B 5 chute. I might have said to them, "How is your tally, boys?"

Witness—A. G. Crimp, 12 March, 1903.

419. Q. Do you remember the answer you got on the Monday morning? A. I could not say.
420. Q. Do you remember them saying it was thirty trucks for the shift? A. No.
421. Q. Do you remember saying, "Why the bloody hell don't you go and run the chute"? A. No.
422. Q. Did you not say there would be an alteration before the shift was over? A. No, I did not.
423. Q. Did you send Jordan and Campbell up to run that chute? A. No, I did not.
424. Q. They went there of their own accord? A. I instructed them to go and truck from B 5 to C 3 winze at 600-foot; Lyons from B 5 to B 2 stope, about three sets below the five. I never saw Lyons, Campbell, or Jordan from half-past 5 on the night of the creep until I saw Lyons on the surface at 4:30 or 5 o'clock in the morning.
425. Q. Do you know the pillar of ground between A 4 and A 2 stopes? A. Yes.
426. Q. Was that pillar of ground there previous to the accident? A. Do you allude to A 3, between A 4 south and A 2 north? That is still there, as far as I know.
427. Q. Was it there previous to the accident? A. Yes.
428. Q. Have any mining operations been carried on on that pillar? A. They took ground out at the foot-wall, and I filled it up.
429. Q. Could you say how many sets were taken out? A. I could not say.
430. Q. Do you think they took out more than two sets? A. I could not swear what work was done, for I had nothing to do with it. Other men supervised that work.
431. Q. Did they take any ground out below the 500-foot level. A. Yes; ground was taken out below the 500 in A 3 stope. That is the stope we were mullocking up.
432. Q. They did not take out the whole of the pillar? A. No.
433. Q. They were not taking it out? A. The whole of the pillar was not shifted on either of the two levels. I think they are standing now.
434. *Mr. Hall.* Q. You told us the last time you saw Lyons on that shift was about half-past 12? A. Yes, when I went down.
435. Q. Did you return to the 500-foot level after half-past 12 before the creep occurred? A. No. The first time I went to the 500-foot level with the men, and Lyons was among them; he was going to the 600 as I came down.
436. Q. Were you talking to Lyons anywhere between half-past 2 o'clock that morning and your coming to the surface? A. No; I never saw the man from half-past 12 till ten minutes to 5.
437. Q. Did you that morning order Lyons to run the chute? A. I never gave instructions to run the chute unless I was sure it was empty.
438. Q. If Lyons said you ordered him to run that chute on that morning, and that he refused to run it, and you told him to go up to the surface, is he telling the truth? A. Such a statement is a deliberate lie.
439. Q. Lyons says: "Crimp said, 'You will have to go and run that chute'; and I said, 'No, I do not care much for the ground at all. I said that ground is bad, and the bottom has been shifting, and it will start all the country up to the South boundary.' Crimp said, 'What do you know about it?' I said, 'I am an experienced miner, and I know all about it.' Crimp was only the mullock-boss, and knew nothing about it. During the thirteen years I have been underground I have seen a lot. I said, 'I have worked ten years underground and I am not going to run that chute.' He said, 'If you do not, you had better go up the shaft.' I said, 'No, in the morning you can report me to the Manager; then I am going home; but I will finish my shift';—is there one word of truth in that statement? A. It is a deliberate lie.
440. Q. Can you tell us how long Lyons had been working at this chute? A. As far as my time-book goes, he has been working with me about eight months, but not at the chute.
441. Q. That is what I am asking? A. I could not say how long at the chute altogether; he might have worked about eight weeks.
442. Q. If he says he has been there for eleven months, that is incorrect? A. He has not been employed on mullock. That is a lie.
443. Q. Question 55, Lyons was asked: "Two days after that, did you show this crack to Mr. Crimp?" his answer was, "Yes, I did," and he said to me, "That is not fit for a dog to crawl in";—is that correct? A. No; he has never found fault with anything of the kind, or pointed out a crack.
444. Q. Did you make use of that expression to Lyons? A. No, I did not.
445. Q. Lyons says you reported the condition of the place to the Manager, and he said he could do nothing;—is that true? A. It is utterly untrue.
446. Q. Lyons says you said you reported it twenty times? A. That is untrue. He has never reported anything to me since he has been employed by me.
447. Q. Question 61, Lyons was asked: "Did he say to you, 'We will go up to-day'?" and his answer was, "Yes, we went up that day, and then he (Crimp) said it was not fit for a dog to crawl in. He ran the chute, and I was watching him"; and in question 63 he was asked: "When he started the chute, what happened?" and he answered, "We were nearly smothered";—is there any truth in that? A. None.
448. Q. Lyons said you were very frightened, and you knocked your head against a 10 x 10 when you were running on your hands and knees;—is that true? A. No; I never struck myself in that chute yet. Nothing of the kind ever occurred.
449. Q. He says he refused to go up that mullock-pass on the 3rd and the 4th October;—is that true? A. He never refused me at any time.
450. Q. He says you asked him his reason, and he said the ground was bad? A. That is not true.
451. Q. He says, on the 5th October you told him to go, and he told you to go yourself, and you replied "Some of you will have to run it";—is there any truth in that? A. No.
452. Q. Question 76, Lyons was asked: "On the morning of the accident—on the Monday morning—Crimp came down and asked you what was your tally?" and his answer was: "Yes; I said thirty-five trucks"; he said "Are you mad?" I said, "Well, I am not going up to run the chute";—is there any truth in that? A. The tally in the chute never troubled me, so long as I knew the men were doing a fair quantity of work.
453. Q. How many men had you under you on the morning of the accident? A. Twenty-four.
454. Q. Did you notice any extraordinary number of rats when you came down? A. No. I went from the 400 to the 500 to the tool-box, and travelled through and noticed nothing.
455. Q. You would have seen them if there had been great numbers? A. Yes. There are rats about there, but nothing sensational.

456. Q. I understand there is a bulk built up alongside this chute? A. Yes.
457. Q. Lyons said there was a bulk ten sets above the line, and resting on three sets of timber? A. I do not know where it is, then.
458. Q. Lyons says he reported to you that this bulk had been giving for three or four days before the creep? A. Lyons has given me no report whatever concerning anything of the kind.
459. Q. The instructions about the men working alone, was it simply with regard to this slide or throughout the mine? A. In any stope where there are no other parties engaged no man is allowed to be alone. No man is allowed to work single-handed in them.
460. Q. Then it is not only with regard to this special little place? A. No.
461. Q. After the creep occurred, Lyons came back to work at the mine? A. Yes, he did.
462. Q. Do you remember where you started him? A. I could not say exactly from memory. He came back on the following night-shift to the night-shift of the creep, about the latter end of October—the 29th October, on Thursday night. He was about there several times, and I asked him if he wanted to start as I was engaging men. I asked him if he was ready to start, and he said "Not yet." He said "I feel a bit sore." He was up there from day to day.
463. Q. You put him on when he said he was ready? A. Yes.
464. Q. Who was with him? A. I could not say on the Thursday, but on the Friday Cooley was with him.
465. Q. Where did you send them to go to work? A. I told them to go to C 3 on the 500 foot level.
466. Q. Did Lyons stay there or come back? A. I went to the 500-foot level to place the men. I came to Lyons, who was coming down, and he was blackguarding and blaspheming at me.
467. Q. What did he say? A. He said, "Is this the bloody place you put a bloody man to work?" He gave me a blackguarding, and said, "You are not bloody well fit to mind sheep." I said "I do not want to have any words with you." He said, "You are the fault of those bloody men being where they are."
468. Q. Did you go to look at the place? A. After he ceased, I said, "Lyons, I will go and get Mr. Cox, the shift-boss." I went up and brought Mr. Cox. We went up and inspected it, and Mr. Cox said it was thoroughly safe. He explained the matter to Lyons.
469. Q. Did you get any report from the previous shift boss? A. Yes, they reported it safe. It is reported on every shift going off.
470. Q. You did not insist upon Lyons working in C 3—he was found another place in the mine? A. On the Saturday he asked me for his time, and I gave it to him, and he went on the day shift.
471. Q. Has any accident taken place in that C 3 stope? A. It is about the same now as it was then.
472. Q. During that shift, before the creep occurred, or the preceding shift, did you hear any creaking of the timber in these places? A. No.
473. Q. Did any of the men complain to you that the timbers were talking there? A. No.
474. *Mr. Edwards.*] Q. When you heard the rush of dust, you said, "Good God, it has gone from top to bottom"? A. Yes.
475. Q. You have been in the mine a long time? A. About thirteen years—from the surface down.
476. Q. And worked in this particular part of the mine? A. In various parts of the mine. I have not been working there, but I have been in charge of the men working there.
477. Q. You know the section, and knew it when Mr. Adams was there? A. Yes.
478. Q. And when Mr. Courtenay was there? A. Yes.
479. Q. You know the pillar at A 3;—did you ever know any inherent defect in it? A. No; I could not say so.
480. Q. Did you ever hear of a "vug" being discovered in it? A. No, I never did.
481. Q. Running between the 500 and 700—a "vug" that was filled in with mullock? A. Not in my time.
482. Q. If not in that particular pillar, do you know of any "vug" being found there? A. No, I do not.
483. Q. Assuming there is a "vug," could you say if the filling would prevent the pillar from crumbling away—an ordinary ore pillar? A. I could not.
484. Q. Will it prevent it? A. It might help to strengthen it.
485. Q. You never heard of a "vug" being discovered and filled in with mullock? A. Not in my time.
486. Q. During the last thirteen years? A. I was not mining in Mr. Adams' time.
487. Q. You never heard of anything of the kind? A. No.
488. Q. You knew Mr. Rowe? A. Well.
489. Q. At the time of his death, could you tell me what was the size of these particular pillars? A. I could not.
490. Q. You were mullocking then;—were you in this section? A. I cannot swear that I was.
491. Q. I am speaking now of between the 400 and the 600 foot levels, A 3; you know the pillar that runs up and down there;—they did run up and down there? A. No; I cannot say I do.
492. Q. Was there any pillar there between A 3 and A 4; it appears to be A 3;—do you know this one? A. I know that pillar.
493. Q. Since Mr. Rowe's death, has any party of miners been mining on that pillar? A. I could not say. I fancy a party started on the south end of A 4 at the corner of the mullock chute going to the 600 level. That is the only party I am aware of.
494. Q. How long ago is that? A. Before the creep.
495. Q. Two months or six months? A. I could not say. I think sets have been taken off that going south to A 3 and A 4 going to the 600. I would not be certain.
496. Q. Between A 3 and A 4, towards the south boundary? A. Yes.
497. Q. Where were these men working? A. At the west end of A 3 and A 4, the block towards the south.
498. Q. How many? A. Three on day shift.
499. Q. How many shifts? A. I could not say. I have seen men working there, but I could not say how many.
500. Q. Have you any idea of their names? A. No.
501. Q. Is this the same pillar that the mullock ran to? A. No.
502. Q. A different one altogether? A. The mullock chute does not run to A 3 at all. This is one between A 3 and A 4. That is south. B 5, which we are alluding to, is north of A 3 block.
503. Q. Have you no idea of the names of the men, or the number of men, or the number of sets of ground taken out? A. I have seen men working in that place but never turned round to count them.

Witness--A. G. Crimp, 12 March, 1903.

504. Q. How long have you seen them working there? A. Different shifts.
505. Q. Six months? A. I cannot make any statement about that, for I do not know. It is not my business at all.
506. Q. Did you see any crack in that pillar that Lyons spoke of? A. It was never pointed out to me. I would not swear it.
507. Q. Was there a crack;—do you know it of your own observation? A. There were cracks in all the ground, but I never took any particular notice of that particular place.
508. Q. How many cracks are there in A 3? A. There might be a crack such as you would see in any ordinary place.
509. Q. I am talking of the pillar that this chute runs up and down; Lyons told us there was a crack in which he put a 10 x 2 and a 10 x 10;—if he is to be believed, and if you were attending to your business, you should see it? A. There is not a crack there. The only pillar where the chute is running down is B 5 on the north side.
510. Q. You have seen men working at that? A. Yes.
511. Q. The extent of the work you do not know? A. No.
512. Q. On how many pillars have you seen men working since Mr. Rowe's death? A. I have seen them in A 3 and A 4 boundary at the corner of the mullock going to the west. That is the mullock chute where the men are supposed to have lost their lives. I could not give you any idea of what was worked since Mr. Rowe's death.
513. Q. You have seen men working since? A. Yes; only on one—A 3.
514. Q. Only on the 500-foot level? A. Yes.
515. Q. Did you see men mining there in Mr. Rowe's time? A. Previous to his death; within about three or four months.
516. Q. What width was the pillar then?
[Mr. Hall: I might say that we will bring witnesses who can state that. They will be able to give all that information.]
517. Mr. Edwards.] Q. Before the creep, did you notice any cracks? A. I never saw anything that was dangerous.
518. Q. Mr. Reid gave evidence here, and in question 226 he was asked: "Have you been through the levels above the 600 foot?" and he answered, "Yes; I have been down from the 500-foot level to the 600-foot level"; he was asked: "Did you notice anything dangerous in the ground when coming down?" and he replied, "Yes, it was rather broken and cracked about; the worst would be between the 400 foot and 500 foot";—did you notice it? A. No.
519. Q. Have you been down to the boundary at the 500-foot level? A. I have been through the stope.
520. Q. According to the plan there is a solid bulk standing at the 500-foot level between the South and Central? A. The nearest I got to it was through A 2 stope on the rope ladder. The only way to get there is through A 4 winze.
521. Mr. Hall.] Q. Do you know anything about plans? A. No; I do not understand the plans.

[Witness left.]

Frederick Williams, called in, sworn, and examined:—

522. Commissioner.] Q. What is your full name? A. Frederick Williams.
523. Q. What is your occupation? A. A miner.
524. Q. Where are you working? A. In the Central Mine at the 500 level.
525. Q. How long have you been working there? A. Over three years.
526. Q. In October last, where were you working? A. I was working at the 500-foot level.
527. Q. Were you mullocking or trucking ore? A. Trucking ore.
528. Q. About the 8th October, what shift were you on? A. I was on the afternoon shift.
529. Q. Were you working anywhere near this place Jordan and Campbell were supposed to be? A. No; I was working on the sills.
530. Q. Have you ever been down the ladder-way, past the chute? A. I have been up to the chute in company with Lyons.
531. Q. When were you up there last? A. I could not say. About two months; when I left the mullock and went to the ore.
532. Q. Some little time before October? A. Yes.
533. Q. What sort of road was it there? A. What I thought to be dangerous.
534. Q. Just describe it? A. We went up about ten sets high on the ladder-way, then go along about ten sets, or somewhere about that, and from there we had to crawl on our hands and knees to the chute.
535. Q. How far would you have to crawl? A. About ten sets or more.
536. Q. Could you not walk? A. No; we had to crawl on our hands and knees.
537. Q. When you got to the chute how did you let it go? A. We had to lie on our side.
538. Q. What did you do then? A. We had to run the chute into B 5 winze.
539. Q. Did Lyons make any remark about it? A. Yes; he made a remark on several occasions that he thought we would be caught in that place.
540. Q. Did he only say, as far as the chute was concerned, he thought it dangerous? A. As we go along the gangway.
541. Q. He thought the gangway might give way? A. Yes; the ground up over it.
542. Q. Did you hear or see any movement of the timbers? A. There was a cap sprung badly as we go along the part we had to crawl.
543. Q. Did you speak to anyone about it? A. We remarked it between ourselves on several occasions.
544. Q. Have you spoken to any of the other truckers about the road? A. Not any more than when Leo Campbell was with us.
545. Q. Was any complaint made to any of the shift bosses? A. Not before me.
546. Q. You are not working there now? A. I am trucking on the level.

547. *Q.* At that time you were trucking from the chute;—did you not make any report to anyone else?
A. No.
548. *Q.* Lyons is an older man than you? *A.* Yes.
549. *Q.* Did you see Crimp there at all? *A.* No; I never saw him at the chute.
550. *Q.* Did Lyons ever tell you he complained to Crimp? *A.* No.
551. *Q.* Was there any mining going on about the chute? *A.* I could not say; I never noticed any.
552. *Q.* That ladder where you come down is one of the principal roads from the 400 foot level to the 500-foot level? *A.* Yes.
553. *Mr. Wise.] Q.* After you had run the chute, what position would you be in to return? *A.* You would have to come back on your side or stomach, and turn round and come out backwards.
554. *Q.* Why would you have to come out backwards? *A.* Because you could not turn round.
555. *Q.* Did you ever hear Crimp ask for the tallies at the close of the shift? *A.* Yes.
556. *Q.* Was it a regular practice? *A.* Yes.
557. *Q.* Did you ever hear anybody refuse to go up and run that slide chute? *A.* No.
558. *Q.* How long were you working there? *A.* About two months before the accident.
559. *Mr. Hall.] Q.* You never complained to any of the bosses? *A.* No.
560. *Q.* Was that because you did not think it was bad enough to complain about? *A.* I thought it was bad, but thought it was mere nervousness on my part.
561. *Q.* This place where you had to go ten sets on your hands and knees, that was mullocked up, was it not? *A.* Yes; within about 2 feet.
562. *Q.* Do you think that mullock contributed to the accident, or do you think it added security to the timber? *A.* That would strengthen it; yes.
563. *Q.* So far as you know, was everything done for the safety of the men and the mine by those in charge?
A. I believe so.
564. *Q.* You left at 12 o'clock on the night of the accident, which occurred at about 3 o'clock in the morning?
A. I could not say what time the accident took place.
565. *Q.* Did you notice an extraordinary number of rats running about? *A.* No.
566. *Q.* Did you hear any cracking of the timbers? *A.* No.
567. *Q.* You did not hear anything? *A.* I was on the north and west line that night.
568. *Q.* About this cap being sprung,—did you call any of the bosses' attention to it? *A.* No; I did not.
569. *Q.* Is it usual for the bosses to ask the tally of the shift? *A.* Yes.
570. *Mr. Edwards.] Q.* How long have you been trucking in the Central Mine? *A.* I have been on different jobs; I could not say.
571. *Q.* What work have you been doing? *A.* I have been cleaning up stopes; I have been on mullock and back trucking.
572. *Q.* How long have you been working there? *A.* Over three years.
573. *Q.* Then you were working there before Mr. Rowe died? *A.* Yes.
574. *Q.* You remember when Mr. Rowe was taken ill? *A.* Yes.
575. *Q.* Do you know of some ore pillars between B 5 and the South boundary? *A.* I could not say about pillars. There were pillars there going south towards the boundary. There was A 3 pillar there.
576. *Q.* That is between A 4 and A 2—this pillar that the Kintore shaft is off? *A.* Yes.
577. *Q.* Kintore shaft is in A 1, and B 5 is the next one to that, and that is where this mullock pass is? *A.* Yes.
578. *Q.* Since Mr. Rowe's death, have you seen any body of men working on any one of these pillars, mining?
A. I could not say. I was driving the horses at the 400-foot level.
579. *Q.* You would not truck ore there? *A.* It would not be on that level; it would be on the 400-foot level.
580. *Q.* Did you ever see the men working—mining—at the pillars on the 400-foot level? *A.* No.
581. *Q.* Since Mr. Rowe's death? *A.* No.
582. *Q.* Did you ever see men working between the 400 and the 500-foot levels since Mr. Rowe's death?
A. Yes; once going back to the south boundary.
583. *Q.* Do you know what pillar that was? *A.* No; I believe it was leading towards A 5.
584. *Q.* Apart from sinking the winze, do you know of any parties who were taking out as much as twenty-five sets? *A.* No.
585. *Q.* You never saw them there? *A.* No.
586. *Q.* Between the 400 and 600-foot levels? *A.* There was a party, I believe, down in A 2 stope.
587. *Q.* When was that, do you remember? *A.* About three months before the accident.
588. *Q.* Do you know who the men were? *A.* I believe one was called Emanuel, or some name like that; but I could not tell you the other names.
589. *Q.* About how long were they working there? *A.* I could not say.
590. *Q.* What level was that? *A.* Between the 400 and 500 foot levels.
591. *Q.* You have no idea how long they were working there—two or three or more months, or only one shift? *A.* More than one shift; but I could not say how long.
592. *Q.* Working contract? *A.* Yes.
593. *Q.* Working three shifts? *A.* Two shifts. We were going three shifts, and the miners were working two. That would be about three months before the accident.
594. *Q.* Within three months? *A.* Yes.
595. *Q.* It might have been two? *A.* Yes.
596. *Q.* Or a month? *A.* I could not say. We shifted about about three months before the accident.
597. *Mr. Hall.] Q.* You have been standing at the tool-box on the 500-foot level? *A.* Yes.
598. *Q.* If anything was falling above, would a man at the tool-box be likely to hear it? *A.* I could not say.
599. *Q.* While you were there, did you hear anything breaking or falling about? *A.* No.
600. *Q.* What is the distance between the tool-box and where you were trucking from B 5 chute? *A.* About three or four sets.
601. *Mr. Wise.] Q.* While working at the B 5, did you ever hear the ground crushing, or hear it talking?
A. No.

[Witness left.]

William Frederick Hughes, called in, sworn, and examined:—

602. *Commissioner.*] Q. What is your full name? A. William Frederick Hughes.
603. Q. What is your occupation? A. A miner, working in the Proprietary Mine.
604. Q. Have you at any time worked in the Central Mine? A. Yes.
605. Q. How long ago? A. Five months ago.
606. Q. What mining experience have you had altogether? A. I have been in the Proprietary Mine five months now.
607. Q. But what experience have you had altogether? A. About seven years.
608. Q. All at Broken Hill? A. I did some in Moonta.
609. Q. How many years have you worked in the Broken Hill mines? A. Four years.
610. Q. How long have you worked in the Central Mine? A. Three years the 27th of last September.
611. Q. On what levels were you working in particular? A. I was on the 400-foot and 500-foot levels.
612. Q. What particular work were you doing on the 500-foot level? A. Trucking.
613. Q. You know the chute called B 5 chute? A. Yes.
614. Q. When were you trucking there? A. About a month before the accident occurred.
615. Q. Early in September? A. Yes.
616. Q. Had you any trouble with the chute? A. Yes, we had.
617. Q. She used to stop? A. Yes, she used to hang up.
618. Q. How would you start it? A. Bar it down; and when it would not run, go up and run it.
619. Q. What sort of a track had you to it? A. A bad track.
620. Q. You had a ladder-way part of the way? A. Yes.
621. Q. And from the top of the ladder-way? A. We went in pretty well on our hands and knees, and go in for ten or twelve sets and then another twenty sets.
622. Q. That would be about thirty-two sets altogether? A. Yes.
623. Q. How did you get at the chute? A. We lay down and crawled into it, and then we lay down till we got it to run, the best way we could.
624. Q. Was there anything wrong with the ground there, other than this? A. Yes, terribly bad timber; it was all crushed and broken.
625. Q. In the vicinity of the chute? A. Right over the top of where we had to lie back to start the chute.
626. Q. Did you speak of this to the other truckers? A. Mr. Crimp would not allow one man to go up; he always sent two.
627. Q. Did you speak of it to Mr. Crimp? A. I told him that the A 4 carried away previous to this.
628. Q. That is above the slide chute? A. Yes.
629. Q. This came away prior to the big accident? A. Yes; it is part of it.
630. Q. The timbers gave way? A. Well, I could not say. I have not been underground since.
631. Q. What was it gave way—A 4? A. Yes; the timber was all splintered like ma'chwood.
632. Q. And did you tell Mr. Crimp that you did not think it safe? A. I waited for him to come up from the old chute and brought him, and he took some of the ground down, and I brought him in front of A 4 and showed him the crack, and he said nothing.
633. Q. What crack? A. Under the footwall—in the wall adjoining, near the chute.
634. Q. What size was it? A. I would reckon about an inch.
635. Q. Was this crack in the pillar of ore? A. Yes, in the mullock wall.
636. Q. And you say a second man was always sent with you;—was that on account of the chute being dangerous? A. Yes; the men were never allowed to go in on their own.
637. Q. And was that the reason given? A. Yes.
638. Q. Crimp was up there with you? A. He was never there all the time I was there; he was never in A 4 winze when I was there.
639. Q. Did you point out the crack? A. This was on the top end of the winze itself.
640. Q. Can you mention anyone who was present when you spoke to Crimp? A. Yes; the two young chaps who were killed—Campbell and Jordan.
641. Q. Anyone else? A. No.
642. Q. Did you make any complaint to anyone outside the men? A. No; I never made any complaint about it.
643. Q. Have you heard Lyons speak about it at all? A. Yes, I have.
644. Q. Just amongst yourselves? A. He told us never to go up on our own. We would not go up on our own.
645. Q. Do you know anything of any work being done to A 2 pillar, between A 2 and A 4? A. There was a pillar taken out. Miners were working there.
646. Q. When would this be? A. About seven or eight months ago.
647. Q. Did they take out the whole of the pillar, or only part of it? A. I could not say; I was off that level afterwards.
648. Q. And so far as you can say, the ground was not safe in the vicinity of the chute? A. A long way from being safe.
649. *Mr. Wise.*] Q. Would there be any possibility of larring down in the chute on your knes? A. No; you would have to lie down.
650. Q. When you got away, how did you get out? A. Crawl back for about two or three sets and then turn round.
651. Q. There was not room to turn round? A. No.
652. Q. Do you know of any others who refused to go up? A. Only by myself.
653. Q. Did you complain to Mr. Crimp? A. He said two were to go up always, and he made another man go up with you.
654. Q. What time were you working there? A. In September last.
655. Q. When you were there did you hear any noises? A. Yes; I heard a little creeping.
656. Q. What about the timbers? A. The timber were cracking and creeping.
657. Q. If Crimp says there was no noise in the timbers he is not stating facts? A. No.
658. Q. How often did you run that chute? A. While I was there, I used to go up twice a day; and sometimes they came for me to run it.

659. *Q.* At the top of the ladder-way, how was it? *A.* Crushed down; the timber was all broken.
660. *Q.* Do you know Godfrey and Milne? *A.* No, I do not know them, only by sight. I could not recognise them on the surface.
661. *Q.* Do you remember seeing them there? *A.* Once or twice.
662. *Q.* Not round that part of the mine? *A.* No, not round that part at all.
663. *Q.* What shifts were you working? *A.* Three shifts.
664. *Q.* Did you see Mr. Hebbard or Mr. Dawe about the slide chute? *A.* No.
665. *Q.* How long had Jordan and Campbell been working there before the accident took place? *A.* I could not say exactly.
666. *Q.* Could you say, about? *A.* About twelve months.
667. *Q.* In that particular place? *A.* Not in that particular place. In that particular place, about a month or six weeks.
668. *Q.* They were very young chaps? *A.* Yes; both of them were young chaps.
669. *Q.* Did you every hear Mr. Crimp ask what the tally was? *A.* Yes, every shift.
670. *Q.* So, if he says he did not? *A.* It is a lie.
671. *Mr. Hall.] Q.* When you say "we spoke," who do you mean? *A.* Lyons and myself, Reid, Campbell, and Jordan.
672. *Q.* Is that Ernest Reid? *A.* Yes; they call him Jack.
673. *Q.* You heard Reid complain to the boss? *A.* Yes.
674. *Q.* If Reid says this, would it alter your opinion; he was asked, did he ever complain to the boss, and Reid swears he did not;—does that alter your opinion? *A.* No, it does not.
675. *Q.* Is Reid a decent sort of a fellow? *A.* Yes, as far as I know.
676. *Q.* When was it you complained to Crimp? *A.* I could not say; it is so long ago.
677. *Q.* You cannot recollect? *A.* No.
678. *Q.* Where was it? *A.* At the other side of B 5 chute.
679. *Q.* It was close to B 5 chute? *A.* Yes.
680. *Q.* Did he ever go and bar the chute? *A.* Not to my knowledge.
681. *Q.* He might have done so without your knowledge? *A.* Yes.
682. *Q.* Lyons says he did;—you would believe Lyons? *A.* It all depends.
683. *Q.* Are you friendly with Lyons? *A.* Yes.
684. *Q.* Have you talked to him about the evidence? *A.* No.
685. *Q.* You have not spoken to him? *A.* Yes.
686. *Q.* But it had nothing to do with this case? *A.* No.
687. *Q.* Your conversation did not influence you or Lyons? *A.* No; not in the slightest.
688. *Q.* You do not know when you complained;—apparently no notice was taken of your complaint? *A.* No notice was taken of it.
689. *Q.* If it was dangerous, why did you not complain to the bosses;—did you complain? *A.* No, I never.
690. *Q.* Do you not think it was very foolish, if it was so dangerous as you state, that you did not complain? *A.* We were only truckers.
691. *Q.* But you have the right of speech? *A.* They would, perhaps, take no notice of it if we were to tell our own boss. I did not think I had any right to look into it.
692. *Q.* A month or two before the accident, did you complain to Crimp? *A.* About two months.
693. *Q.* Was it dangerous two months before the accident? *A.* The ground was all broken twelve months before that.
694. *Q.* Did Lyons think it was dangerous two months before the accident? *A.* I could not say.
695. *Q.* When did he complain to you? *A.* Six or seven months before.
696. *Q.* If he told you, you believed he was telling the truth? *A.* Yes.
697. *Q.* If Lyons says, in answer to Mr. Wise: "*Q.* It was only from the 25th September to the 8th October that you knew the place was dangerous?" and Lyons answered, "Yes, I had not time to go to the Secretary;"—is that right; seeing that he was on oath, is it right that he told you six or eight months before the accident? *A.* He might have thought it dangerous, and I might have.
698. *Q.* You told us he said six months before the accident it was dangerous? *A.* He said it was dangerous, and never for one man to go up by himself.
699. *Q.* Is not that a general rule in the mine? *A.* There were men working in A 2 chute.
700. *Q.* Is it not a general instruction in the mine that no man was to go to any such part of the mine alone? *A.* I have been alone.
701. *Q.* When were you told to go alone? *A.* I was sent to 4 winze trucking on my own.
702. *Q.* You did not want another to go and push your truck for you? *A.* I did not need that.
703. *Q.* On what other occasion, besides pushing your truck, were you sent by the shift-boss where no men were working? *A.* That is the only previous occasion that I know of.
704. *Q.* Are you a member of the Amalgamated Miners' Association? *A.* I am.
705. *Q.* Did you make any complaint in the Amalgamated Miners' Association complaint-book? *A.* No.
706. *Q.* Although you knew this was dangerous two months before? *A.* I was not in the Association then.
707. *Q.* When did you join? *A.* About six weeks ago.
708. *Q.* You were not a member at the time? *A.* No.
709. *Q.* You told us you heard Reid complain to the boss; Reid swears he did not; you told us Lyons said it was dangerous six or eight months before, and he swears it was only from the 25th September;—are you quite certain now that you did make a complaint at any time to Crimp before this accident? *A.* Yes.
710. *Q.* I think you told us the timber all above where you were when you were to bar this slide chute was cracked and broken? *A.* Yes.
711. *Q.* If you had to crawl in on your belly, how could you see up above your head? *A.* I had room to turn my head.
712. *Q.* As a matter of fact, was there not 2 feet between where it was mullocked up where you had to go and the top of the timber? *A.* I could not say what distance. I know my hands and knees were sore.
713. *Q.* Did you call Crimp's attention to the timbers being so bad where you had to lie down? *A.* I cannot say when it was, but I told him.
714. *Q.* Who was present when you told him? *A.* I was on my own; that was going round B 3, wheeling the trucks.

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715. Q. Do you know Fred. Williams? A. Yes.
716. Q. He had the same opportunity of seeing dangers as you had—the crushed timbers? A. Yes; if he looked he could see it, I daresay.
717. Q. Did he make any complaint to the boss? A. I could not say.
718. Q. He is not included in your "we"? A. No.
719. Q. Besides you and Lyons and Reid, who else were there? A. Campbell and Jordan—the two deceased.
720. Q. Do you say you heard Lyons complain to Crimp about the ground being dangerous? A. I said I heard Lyons complain about the ground being dangerous; I did not say to Crimp.
721. Q. Where did you see the crack you spoke of? A. On the side of A 4.
722. Q. Close alongside? A. Yes; right alongside where we used to go along with the trucks
723. Q. Who called your attention to that? A. I was sitting down when I saw it.
724. Q. What did you do? A. I went and brought Mr. Crimp.
725. Q. When was that? A. I could not say when that was.
726. Q. You cannot recollect at all? A. No.
727. Q. What is the distance from A 4 to B 5? A. I could not tell you that; I never measured it
728. Q. Unless you measure you have no idea of distance? A. No.
729. Q. Cannot you give any idea;—you worked there for three years? A. About 60 or 70 feet, more or less.
730. Q. Was anyone with Crimp when you told him of the crack? A. He came up from the old chute, and I waited for him and brought him down to A 4 and showed it to him.
731. Q. You said it was a mullock pillar? A. Yes; the mullock, but I could not say whether it was cracked in the mullock or in the ore.
732. Q. Is a crack in the mullock dangerous? A. Yes, it is.
733. Q. Did you do anything to it? A. I put a stick in it.
734. Q. Did you show that stick to anybody? A. No; only the truckers who went past.
735. Q. Did you tighten it up? A. When I came on shift again it was loose.
736. Q. What sort of a stick was it; a little bit;—it was not a 10 x 10? A. No, not exactly.
737. Q. How long did it stop there? A. It stayed a couple of shifts, and got knocked out; I did not see it again.
738. Q. You did not watch it? A. No.
739. Q. Why did you not watch it, seeing that you thought it so important? A. I was shifted from that place to another place.
740. Q. How long was that before the accident? A. About four months, I should say.
741. Q. That was before the creep in June? A. I could not say.
742. Q. It was about four months before the accident that you put this stick in the crack;—was it twelve months? A. No, not twelve months.
743. Q. You have not been in the Central Mine since the creep? A. No.
744. Q. Was the crack on the level, or some distance above the floor-level? A. On the floor-level.
745. Q. What was the last time you noticed it before the accident? A. I was not trucking from 4 chute after. I got shifted from that.
746. Q. Somewhere about four months before the accident? A. Yes; about that.
747. Q. You were trucking at B 5 about a month before the accident? A. I was on the 700-foot level.
748. Q. And had been there about a month before the accident? A. No.
749. Q. Where did you go? A. Castles and I were filling ore between B 3 and the 700-foot level.
750. Q. Were you working on the 500-foot level right up to the time of the accident? A. No.
751. Q. Did you work on the 500-foot level any time after a month before the accident? A. Yes; on different occasions, now and again.
752. Q. Did you ever go to bar that chute a month before the accident? A. Yes; twice.
753. Q. How long before the accident? A. About three weeks.
754. Q. That would be some time about the middle of September? A. Yes.
755. Mr. Edwards.] Q. Could you give us the time before the accident you worked there? A. About the middle of September, as far as I can recollect.
756. Q. Did you notice anything in the pillars at that time? A. Miners were working at the pillar between A 2 and A 4.
757. Q. How long were the miners working there? A. I could not give any idea how long they were working there; I was on the different levels.
758. Q. What was about the time you last saw them? A. About two months before the accident.
759. Q. About August? A. Yes, about that.
760. Q. Could you give any idea of the number of sets that were in that pillar? A. No; I did not take that much notice.
761. Q. Did you notice any difference in the strength of the country during the last twelve months? A. The timber was all lying over from the weight coming against it. The ground kept surging over.
762. Q. Side weight or top weight? A. Top and side weight together. More top weight than anything. The timber was lying over and broken.
763. Q. Which side were they working on? A. Towards the south boundary, I should call it.
764. Q. The pressure was coming in against this ground they were taking out? A. Yes.
765. Q. You said something about the drive A 4 above the slide crushing down;—how long before the accident was that? A. About four months before the accident.
766. Q. Was the drive falling? A. Little pieces came down. Crimp looked for a bar, but he got a drill and brought some down, and I brought him down and showed him the crack beside the winze.
767. Q. Was it at the bottom? A. Yes; level with the slide.
768. Q. You said you noticed cracks in the foot-wall? A. Yes; about an inch, running up.
769. Q. How far above the level? A. On the 400 level.
770. Q. That is the same crack? A. Yes.
771. Q. How far did it extend? A. It was coming down with the foot-wall.
772. Q. How far did it go? A. I could not say. I got a stick and wedged it in tight, and when I came on again it was loose.
773. Q. You said the crack was in the mullock;—do you mean the country rock or the filling? A. The country rock.

774. *Q.* Is that in the foot-wall? *A.* It was on one of the walls; I do not know whether it was the foot-wall.
775. *Q.* Was it on the east side or the west side of the mine? *A.* The east side; the foot-wall side.
776. *Q.* And this crack was in the country on that side? *A.* Yes.
777. *Q.* Were you ever over in B 5? *A.* Yes.
778. *Q.* Do you know the pillar there? *A.* Yes.
779. *Q.* Did you see any cracks in that? *A.* It was all friable, and if it was cracked we took no notice of it.
780. *Q.* When you said you heard the timbers talking, which do you refer to? *A.* At the A 5 stope.
781. How long before the accident did you hear that? *A.* Months before the accident; she was creaking occasionally.
782. *Q.* Were you working there when Mr. Rowe was underground-manager? *A.* Yes.
783. *Q.* Did you hear him say anything about taking away these pillars? *A.* No, I did not.
784. *Q.* Do you know if any work was carried on there after his death? *A.* Men were working there after his death; but whether with his sanction or not I could not say.
785. *Mr. Wise.] Q.* When you complained to Crimp about this dangerous part, did he reply? *A.* He took no notice.
786. *Q.* Did he answer you? *A.* No.
787. *Mr. Hall.] Q.* When you were there, was the Central Mine fairly well filled up with mullock? *A.* Yes, fairly well.
788. *Q.* Do you approve of mullocking, or do you think timber is better;—do you think it adds to the security of the mine and the safety of the men? *A.* Yes; by mullocking, by all means.
789. *Q.* Do you think that in this pass, where you had to go to bar down the stuff, it was calculated to add to the safety by having it half mullocked up;—would the fact of its being mullocked up make the timbers firmer? *A.* Yes, certainly.
790. *Mr. Edwards.] Q.* When you tapped that mullock chute, did you notice anything peculiar about it? *A.* As soon as we started it, it came down all of a sudden.
791. *Q.* How did it run? *A.* It came down all at once; the timber started trembling and cracking.
792. *Q.* Was there a big volume of stuff coming down? *A.* Yes.
793. *Q.* When running freely? *A.* Yes; a lot came down then.
794. *Q.* Did it vibrate? *A.* One used to stay, while the other went up; there was not room for two at once.
795. *Q.* Did the timber shake much off the pillar? *A.* Yes.
796. *Mr. Hall.] Q.* Did it shake much off the timber? *A.* She shook a great deal.
797. *Q.* Just as any full chute would shake? *A.* This one used to shake more than any other I have seen.
798. *Mr. Milne, Mining Inspector.] Q.* Did you ever ask Mr. Crimp to clean out that place to give you more room? *A.* No.
799. *Q.* Would it not have been more convenient? *A.* Yes.
800. *Q.* Did you not think it necessary? *A.* Yes; the more room you had, the better for yourself.
801. *Q.* Why did you not ask him, then? *A.* I could not say.
802. *Q.* Did it not strike you that it would be advisable to have more room? *A.* It would have been.
803. *Q.* Yet you never asked him? *A.* No.

[Witness left.]

Alfred Francis Cooley, called in, sworn, and examined:—

804. *Commissioner.] Q.* What is your full name? *A.* Alfred Francis Cooley.
805. *Q.* What is your occupation? *A.* I am a miner, working at the Proprietary Mine at present.
806. *Q.* You were previously working as a trucker in the Central Mine? *A.* Yes.
807. *Q.* How long had you been working there? *A.* About four months.
808. *Q.* And left when? *A.* About a month ago.
809. *Q.* You had only been a short time employed prior to the accident;—how long before the accident happened? *A.* Very nearly three months.
810. *Q.* About the time of the accident, who was on shift with you? *A.* Lyons, Brokenshare, Stackpool, Symonds, Prisk, and several others.
811. *Q.* What particular work had you to do? *A.* Sometimes trucking and sometimes filling in sets.
812. *Q.* Where were you trucking from? *A.* Generally from C 3 to B 1.
813. *Q.* Did you ever hear any of the truckers speak about the B 5 chute;—did you ever hear them say it was not safe? *A.* No.
814. *Q.* Have you had any conversation with Lyons about it at all? *A.* No.
815. *Q.* Have you heard Lyons speak to Crimp about it? *A.* No.
816. *Q.* Where were you on the night of the accident? *A.* Working in C 3 stope on the 500-foot level—the sill floor.
817. *Q.* What were you doing when the accident occurred? *A.* I was filling-in the cross-cut.
818. *Q.* What did you hear first? *A.* I could not hear any noise. We felt a strong wind, and my light was blown out.
819. *Q.* After the light was blown out, did you hear any noise? *A.* Yes—cracking.
820. *Q.* Did you hear a noise as if something was falling? *A.* Yes; that was after we had gone into the plat.
821. *Q.* Some time after the light was blown out? *A.* Yes.
822. *Q.* You went to the ladder-way? *A.* Yes.
823. *Q.* Were you ever up the B 5 chute? *A.* Yes, I was up once; that was two nights before the accident.
824. *Q.* When you went up who went with you? *A.* Lyons.
825. *Q.* Did you go up the ladder-way? *A.* Yes.
826. *Q.* And when you reached the top of the ladder-way how did you proceed? *A.* We had to crawl for about 50 feet.
827. *Q.* Had you to crawl all that way? *A.* Kneel down. There was no room to stand up.

828.

Witness—A. F. Cooley, 12 March, 1903.

828. Q. When you got to the chute how did you run it? A. Lyons went and ran the chute. I stayed back about two sets with the light.
829. Q. How did he get there? A. He crawled there and commenced to bar down.
830. Q. What height would the roof be above the floor? A. About 4 feet 6 inches.
831. Q. Right at the chute itself? A. About the same distance.
832. Q. So that he could almost get along by stooping? A. He could kneel down.
833. Q. Would he have to crawl on his belly at any place to get there? A. It was about the height of the table at the chute. I stayed about three sets back.
834. Q. What width would it be? A. About the same width as the table.
835. Q. By holding the light you could see Lyons? A. Yes.
836. Q. What position was he in? A. Almost lying down to get at the chute.
837. Q. Why did you go up with him? A. Mr. Crimp asked me to go up. He told me to go with Lyons, and I went.
838. Q. Did he give you any reason? A. It was always customary for two to go up this particular place. I understood that no man was allowed to work by himself.
839. Q. It is customary to always have two men together? A. Yes.
840. Q. When you went up with Lyons, did he say anything about the chute? A. He said it was very dangerous, and that he would not be surprised if an accident happened there.
841. Q. Did he say in what way it was dangerous? A. No.
842. Q. Did you hear him say anything to the shift-boss about it? A. No.
843. Q. Were you there when the shift-boss told him to go and clear this pass? A. I did not hear him say to Lyons, but he was speaking to him and he turned round to me and said, "You go with Lyons."
844. Q. How far away were you from them when they were talking? A. Four or five sets.
845. Q. They might have talked and you would not know anything about it? A. Yes.
846. Q. Lyons did not point out anything that he thought was dangerous? A. No.
847. Q. You could not say whether he considered lying down in the chute dangerous or the ground itself? A. I understood him to say the ground all round was dangerous.
848. Q. Have you had a conversation with Lyons at all since the accident? A. Just a few minutes, on the surface a day or so after the accident.
849. Q. Did he say where he was when the accident occurred? A. Yes; he said he was four or five sets away from the chute. He said he was going back with an empty truck and was knocked over by the wind.
850. Q. Did you notice an unusually large number of rats about on this particular night? A. No.
851. Q. Were there a good many rats there? A. Yes; there is always a good many there.
852. Mr. Wise.] Q. How long were you working about this B 5 chute? A. I never worked there. C 3 was the only one.
853. Q. How did you happen to be sent up this night? A. I was waiting for a place and was sent there.
854. Q. Did you ever hear the timbers creaking and making a noise at B 5 chute? A. No.
855. Q. When Lyons went to run the chute, did you notice how he came back,—did he turn round or crawl out backwards? A. I could not say.
856. Mr. Hall.] Q. On the night of this accident who was your mate? A. Brokenshare.
857. Q. Was there any warning of the cracking of the ground? A. No.
858. Q. It was only two nights before the accident that you went with Lyons to this chute? A. Yes.
859. Q. Did Lyons seem perfectly willing to go up the chute? A. Yes.
860. Q. Did he have any "barney" with the mullock boss about going? A. No.
861. Q. Did he tell you he refused to go, and that it was only because he thought he would get the "sack" if he did not, that he went? A. No.
862. Q. You were close by—within about three or four sets—when the mullock boss spoke to him and turned to you and told you to go with him? A. Yes.
863. Q. When you went on your hands and knees to the chute, did you turn round? A. We turned round and came back.
864. Q. There was no difficulty about coming out? A. No.
865. Q. Did Lyons at any time make any complaint to the boss of the dangers of this place in your presence? A. No.
866. Q. Do you think mullocking up this passage to the chute would add to the security of the chute, or make it more liable to accident? A. I think it would be much safer having it mullocked up as it was.
867. Q. As far as you know, was everything done for the safety of the men and the security of the mine by the bosses? A. Yes. I have been timbering since, and there was always plenty of timber.
868. Q. Were you ever compelled to work in a place you did not want to work in, or were you ever told that if you did not you would have to clear out of the mine? A. No.
869. Q. Did you go to work with Lyons after the accident? A. About a week afterwards.
870. Q. I think you went down to C 3 chute after the accident when Lyons made some complaint? A. About a week after the accident we were sent to C 3 chute, and we heard the cracking, and he said he was not going to work in places like that. I was guided by him and I would not go either.
871. Q. What was done? A. We came down to the mullocker and he sent for the shift-boss. The two went up and we waited till they came down. They said it was perfectly safe. Lyons said he would sooner go up the shaft.
872. Q. You did not go on to work there then? A. No.
873. Q. You got another place on the mine? A. Yes. We were out a day or two, both of us.
874. Q. So far as you can say, is Crimp a careful, cautious boss? A. Yes.
875. Q. You are not working under him now? A. No. He told me to always be careful and fill up well.
876. Q. Do you know anything about the pillars between the Kintore shaft and the boundary? A. No; I was never round there at all.
877. Q. You were in the south-east? A. Yes.
878. Q. You know nothing about the pillars there? A. No.
879. Q. Did you ever see cracks in that level coming off the foot-wall? A. No; but there are always slight cracks.
880. Q. Did you ever see men working on the pillars A 3? A. Not before the accident. There was a party working just for a shift after the accident. They were taking away some of the stuff that fell.

881. Q. The standing pillar I mean? A. I do not know anything about it.
 882. Q. You were always on safe ground? A. Yes.
 883. *Mr. Wise.*] Q. Did Mr. Hebbard send for you on March 7th to go to his office? A. No.
 884. Q. You are certain about that? A. Quite.
 885. Q. Were you in the office without being sent for? A. Yes.
 886. Q. Who was there? A. Mr. Beaumont.
 887. Q. Was Mr. Hall the solicitor there? A. No.
 888. Q. Are you certain? A. Yes. I have not been there for a long time.
 889. Q. You were not there just previous to the Commission sitting? A. No.

[Witness left.]

Frederick Davis, called in, sworn, and examined:—

890. *Commissioner.*] Q. What is your full name? A. Frederick Davis.
 891. Q. What is your occupation? A. A horse-driver.
 892. Q. Have you been mining at all? A. No.
 893. Q. You are working in the Central Mine? A. Yes.
 894. Q. How long have you been there? A. About thirteen months.
 895. Q. What level were you working on? A. I was horse-driving on the 400-foot level.
 896. Q. Do you know Joseph Lyons? A. Yes.
 897. Q. About the 25th September last, were you with him between the 400 and 500-foot levels? A. Yes, I was with him about that time.
 898. Q. Do you remember how you came to go with him? A. I was sent up to truck with him. I was trucking then.
 899. Q. Just an off day, or were you regularly at work trucking? A. Regularly at work.
 900. Q. Did you go with him to B 5 chute at all? A. Yes.
 901. Q. Who sent you? A. Crimp sent me to work with him.
 902. Q. How did you get there? A. We walked part of the way; then we had to crawl part of the way.
 903. Q. In the drive? A. Yes.
 904. Q. What height was it? A. Just room for to crawl in, when I was there.
 905. Q. On your hands and knees. A. Yes.
 906. Q. Did you go to the end with him? A. Yes.
 907. Q. Could you go on your hands and knees to the end? A. As he went back to the gangway it was higher, but at the chute it was lower.
 908. Q. What height was it? A. Somewhere about 2 feet 8 inches or 2 feet 10 inches.
 909. Q. Was it the height of the table? A. No.
 910. Q. When he left the chute what position was he in? A. Lying on his side.
 911. Q. When he came back, how did he come? A. He came out backwards for a couple of sets, and then turned round.
 912. Q. Could he have turned round before? A. No, he could not.
 913. Q. Did he make any remark to you about the ground? A. Yes; he said it was not safe for a dog to be in there, let alone a man.
 914. Q. Did you hear him complain to anyone about it? A. Not about that chute; he only spoke to me.
 915. Q. Do you remember him pointing out a pillar to you at any time? A. Yes; it looked like a pillar.
 916. Q. Where was that? A. A 4.
 917. Q. What remark did he make about it? A. She was cracked, and he put a wedge in it the day I was with him. The next day it was loose; he said he caught hold of it.
 918. Q. He told you the ground was not safe? A. He said it was not too good.
 919. Q. What did you think about it? A. I thought the same when I looked at it.
 920. Q. And were you with him at any time when Crimp was there? A. Sometimes I would be there a couple of shifts.
 921. Q. Did you hear Lyons or anybody else complain to Crimp about the state of the ground? A. No.
 922. Q. Did you make any complaint? A. No; I only said, "It is not much of a place for anybody to go to." I said that to Crimp, and he said, "Well, it has to be done."
 923. Q. What was your main objection to the place;—why did you think it was unsafe? A. The ground did not look too good.
 924. Q. The ground round the chute was too low? A. Yes.
 925. Q. Was it because you had to crawl so far? A. Yes; it was all broken, from what I could see.
 926. Q. Were you down about the 8th October, the day of the accident? A. I was driving horses on the 400 level the day before.
 927. Q. Where were you at the time of the accident? A. I was at home asleep.
 928. *Mr. Wise.*] Q. You were not working there continuous? A. No; only a shift now and again.
 929. Q. What was the back of that drive into the chute like, where you left the ladder and had to crawl? A. The timber was all broken away.
 930. Q. Was it broken much? A. One cap was broken.
 931. Q. Only one cap? A. Only one.
 932. Q. Was there any loose ground there? A. Yes.
 933. Q. Did you ever hear the timbers talking? A. No.
 934. Q. Never? A. No.
 935. *Mr. Hall.*] Q. What shift were you on the day of the accident? A. Day-shift.
 936. Q. While you were there, did you notice any remarkable number of rats? A. No; I was driving horses that day.
 937. Q. How long before the accident was it you told Crimp that the ground did not look too good? A. It must have been some weeks before.
 938. Q. Where was it that Lyons showed you the crack in A 4? A. Right in front of the chute.
 939. Q. That is the one he put the wedge in? A. Yes.
 940. Q. Next day he told you it was loose? A. Yes.
 941. Q. What about the second day? A. I was not there.

Witness—F. Davis, 12 March, 1903.

942. Q. You could not have rammed a 10 inch x 10 inch into it? A. Not the second day.
 943. Q. Did you ever make a complaint to anyone other than the words you mentioned to Crimp? A. I told Martin about it. I said it was cracked.
 944. Q. Did you mention anything else to Crimp? A. Not about that.
 945. Q. As far as your experience went, if you made complaint, was it, or would it be remedied, if you found any part dangerous? A. Yes; I told them about a place down on the 600 level, and they fixed it.
 946. Mr. Edwards.] Q. Where was this crack you spoke of in the pillar? A. Right in front of the chute, as far as I recollect.
 947. Q. In the ore body? A. Yes, in the ore body.
 948. Q. How far was it running up? A. I never took any notice.
 949. Q. How far above the level? A. It was up in the stope.
 950. Q. How many sets from the level? A. Six or seven, as far as I could make out.
 951. Q. Each of these sets would be 7 feet? A. Something like that.
 952. Q. How wide was the crack? A. I do not know; I did not look to see the length. I only looked where the wedge was.
 953. Q. Did you not look to see if it extended? A. I never took any notice.
 954. Q. Was it running down? A. Running across.
 955. Q. On the level? A. Yes.
 956. Q. Did it stop there? A. It was there when I was there last.
 957. Q. What size was the wedge? A. Ten inches wide by 2 inches, as near as I can recollect.
 958. Q. Did he ram it home tight? A. He knocked it in with his hand.
 959. Q. How long were you working in that level? A. Sometimes a couple of shifts.
 960. Q. How many months before the accident? A. About nine weeks; the last time I was there before the accident.
 961. Q. Do you know the pillar between A 4 and A 2? A. No, I do not.
 962. Q. Did you see any party of miners working there? A. They were not there when I was there. I heard them say there was a pillar there at one time.
 963. Q. Who is "they"? A. Joe Lyons said so. He said there used to be miners working up there.
 964. Q. Did they say anything about the pillars? A. They never said anything to me about the pillars.
 965. Q. Were you not working in the Central at the time these men were working on the pillars at A 3? A. No; I do not know anything about A 3—only A 4 and the crack.

[Witness left.]

[The Commission adjourned till Friday, 13th March, 1903.]

FRIDAY, 13 MARCH, 1903.

[The Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQ., POLICE MAGISTRATE AND WARDEN,
 BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. W. E. Wainwright appeared to represent the Broken Hill South Silver-mining Company (No Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Thomas Cadwallader Roberts, called in, sworn, and examined:—

966. Commissioner.] Q. What is your full name? A. Thomas Cadwallader Roberts.
 967. Q. You are a miner? A. Yes.
 968. Q. You are living in Broken Hill? A. Yes.
 969. Q. How long have you been here? A. I have been fourteen years working in Broken Hill mines.
 970. Q. What other experience have you had? A. In the Old Country.
 971. Q. How long? A. From twenty to twenty-five years.
 972. Q. Last year you were President of the Amalgamated Miners' Association? A. I was.
 973. Mr. Wise.] Q. You inspected both the Central and South Mines after the disaster? A. Yes.
 974. Q. Have you formed any conclusion as to the cause of the creep which occurred in the Central Mine on the 8th October last? A. From what we saw, I came to the conclusion that there must have been a cavity in between the boundary of the two mines. I could not say whether it was in one mine more than the other, but it must have been in the vicinity of the boundary.
 975. Q. Do you think, if the Mines Department of New South Wales were to insist upon the worked-out places being mullocked and packed, would such an accident occur? A. If the stopes are filled in as soon as worked out a creep may take place; but if it is filled in, it will not go down so suddenly.
 976. Q. This was the general experience along the line of lode? A. Yes.
 977. Commissioner.] Q. Can you form any idea of where the cavity was;—was it on the low level or high level? A. It is two years or more since I was in the mine; but looking at it from the point where we got at, the cavity must have been somewhere in the lower levels.
 978. Q. Below the 500-foot level? A. Yes; it must have been, because it is affected lower down than that.
 979. Q. I suppose you were on the surface? A. Yes; I went round the surface.
 980. Q. You saw signs of the creep on the surface? A. Yes,

981. *Q.* Would that not lead you to believe that the fall occurred somewhere close to the surface? *A.* It must have gone right through the stopes below—the lower ones first and the top ones afterwards.
982. *Q.* Were you in that cavity in the Central Mine at the 400-foot level—the cavity that was being filled? *A.* Yes.
983. *Q.* Did you notice the back or head? *A.* Yes; I did notice the roof.
984. *Q.* Have you worked in either of these mines recently? *A.* Two or two and a half years ago I worked in the Central.
985. *Q.* Do you know of any stopes not filled? *A.* When I was working there the stopes were pretty well filled.
986. *Q.* Have you come across any depleted ground not filled? *A.* Not where I was working at the time.
987. *Q.* This stuff must have gone somewhere? *A.* There is one stope where the men were working, but we could not see all the other stopes.
988. *Q.* You are only speaking of what you saw yourself? *A.* Yes.
989. *Mr. Hall.] Q.* As a miner of wide experience, you are of opinion that well filling depleted stopes with mullock certainly adds to the safety of the mine and the security of the miners? *A.* Yes.
990. *Q.* You have worked in the Central Mine? *A.* Yes.
991. *Q.* And you have told us that the stope you were working in was well filled? *A.* Yes.
992. *Q.* Did you hear any complaints from the men that the Central Mine authorities neglected to fill the stopes with mullock? *A.* No one ever complained to me.
993. *Q.* Was it not well known on the field among the miners that the Central Mine was one of the best mines to fill the depleted stopes? *A.* Some men; you go by hearsay.
994. *Q.* From your own experience, it was well filled with mullock? *A.* Yes, where I was working.
995. *Q.* In your opinion, the cavity must have been below the 500-foot level? *A.* The cavity was somewhere in the vicinity of it.
996. *Commissioner.] Q.* You did not say in any particular mine? *A.* No.
997. *Mr. Hall.] Q.* I think you inspected the mine shortly after the accident? *A.* We were down on the 15th.
998. *Q.* Have you inspected either the Central or South Mines within the last fortnight or three weeks? *A.* We have not been there since that.
999. *Q.* Do you not think an inspection of the South and Central Mines, showing the state of the mine at present, would be of great assistance to you in coming to a conclusion as to where and how the fall occurred? *A.* We could not get any further than we did before. If there was anything fresh —
1000. *Q.* Would not later developments assist you to arrive at a conclusion? *A.* Is there anything more to be seen?
1001. *To Mr. Wise.] Q.* I believe there is something more to be seen? *Mr. Wise:* No.
1002. *Q.* Mr. Rowe says you can get 250 feet further on the 400 level than when you were down, and also on the 600-foot level? *A.* I should like to see it.
1003. *Q.* At the time you inspected the Central and South Mines, were you shown everything that there was to be seen? *A.* Everything possible. We were guided everywhere.
1004. *Q.* At the Central Mine did you see the results of the creep lower down than the 400 foot level? *A.* Down to the 500. In the 500 and 400 levels.
1005. *Q.* In the South Mine, did you see the effects of the creep on any of the levels? *A.* We went right down as far as the 800-foot level.
1006. *Q.* What level did you start at in the South Mine? *A.* At the 500.
1007. *Q.* You went from the 500 to the 800 levels? *A.* We went down to the 800 level.
1008. *Q.* You did not visit any of the levels above the 500 in the South Mine? *A.* No.
1009. *Q.* Do you know, as a matter of fact, if the South Mine is closely mullocked up on the boundary? *A.* I could not say much about the stopes on the boundary.
1010. *Q.* Were you not shown them, or was it impossible to see them? *A.* The places I saw on the day we visited the mine, the timbers seemed all right as far as we went. We went in the 500 level, and went in the drive that was going to the stope, and we could not get any further.
1011. *Q.* Is that because the stope was crushed? *A.* I believe where the last disaster happened—the last disaster in the South Mine. We went into the drive and could not get any further. There was only the mouth of the drive; it was filled in with broken ground.
1012. *Q.* You could not see what was the condition of the stoping on the Central boundary? *A.* No.
1013. *Q.* Did you go to the boundary on the 600 or 700 foot levels? *A.* We went on the 600. While we were going round he told us we were about 20 feet at one point and about 30 feet at another on the Central boundary at the 600 level.
1014. *Q.* On the 700 foot level did you get to the boundary? *A.* Yes; we were at the boundary.
1015. *Q.* Between the levels, did you get to the boundary? *A.* No.
1016. *Q.* Assuming that you could get 150 or 200 feet further south now, would not a further inspection be of assistance to you in forming an opinion as to where the fall occurred? *A.* The more you see the better information you get.
1017. *Q.* You have never been refused permission to go down the Central Mine with a view to inspecting the scene of the accident? *A.* No.
1018. *Q.* Every assistance was given you when you were there? *A.* Yes.
1019. *Q.* When you inspected the Central Mine did you examine the backs of the cavity at all, and did you see marks of filling on the backs? *A.* I did not see marks of filling on the backs. Like any other back, when the ground leaves it, it is there and you could not see any marks on it.
1020. *Q.* If, on inspection now, you could see marks of the mullock filling on the backs of the cavity, would that be of assistance to you in forming an opinion; would it not assist you to the conclusion that the mullock filling ran out and the backs stood firm? *A.* Not on that back where we saw. It might be further back somewhere else.
1021. *Q.* Have you any knowledge of the creeps that have occurred in the South Mine near the boundary? *A.* I was not working there at the time.
1022. *Q.* If within a few days of the sitting of the Commission, work had been pushed on in the Central so that you could see 150 or 200 feet further south than when you saw it, would not a further inspection by you assist you to come to a conclusion? *A.* If we could see more than we saw before it would give us a better chance of forming an opinion.

Witness—T. C. Roberts, 13 March, 1903.

1023. *Q.* Would you not like to inspect it before closing your evidence? *A.* Yes.
 [*Commissioner*, in reply to a request by Mr. Hall, said he would be glad if the witness would make an inspection of both mines. It would be necessary that he be accompanied by a representative of each mine, and would also be accompanied by Mr. Wise. It was then decided that Mr. Roberts and Mr. Richards should inspect the mines on Saturday, the 14th instant.]
1024. *Mr. Wise.*] *Q.* In answer to Mr. Hall just now, you said, from your experience of the Central Mine, the mullocking had been complete? *A.* Yes; in the stope I was working in at that time, two and a half years ago.
1025. *Q.* As far as the rest of the mine is concerned, you do not know anything about the filling of the stopes? *A.* No.
1026. *Q.* This place where it is supposed to be marked, would it not be possible to stain the back by throwing a shovelful of mullock at it? *A.* I would not say anybody would do that.
1027. *Q.* Do you think that it could be done;—could you stain the back? *A.* You could stain it in different ways. You could fire a shot and stain it. I would not say anybody would do it.
1028. *Mr. Hall.*] *Q.* Would it be possible for a man to throw it up 30 feet with a shovel? *A.* I do not think anybody would try.
1029. *Commissioner.*] *Q.* Did you notice how the timbers were crushed about in the lower levels? *A.* In regard to the position of the timbers on both sides of the creep, on looking at things from the Central, it appears to be coming south or south-east, and from the South Mine everything is going toward the Central Mine boundary. I therefore came to the conclusion that everything is between the boundary line.
1030. *Q.* Do you think that the ordinary run of stuff would knock the timbers about as they are—just the ordinary run of stuff? *A.* No; that is above the ordinary run of dirt.
1031. *Q.* You think that was something more than the ordinary run of stuff to cause that crush? *A.* The foundation of the country and the stopes must have given somewhere.

[Witness left.]

Charles Richards, called in, sworn, and examined :—

1032. *Commissioner.*] *Q.* What is your full name? *A.* Charles Richards.
1033. *Q.* You are a miner living in Broken Hill? *A.* Yes.
1034. *Q.* What mining experience have you had? *A.* I have had about twenty-two years' experience.
1035. *Q.* How many years at Broken Hill? *A.* Seventeen years.
1036. *Q.* And the remainder of the time? *A.* At Moonta Mines in South Australia.
1037. *Q.* You inspected the South and Central Mines on the 15th October last? *A.* During October.
1038. *Q.* Mr. Roberts, Mr. Dale, and Mr. Wise were with you? *A.* Yes.
1039. *Q.* Which mine did you visit first? *A.* The Central.
1040. *Q.* Had you any difficulty in getting through? *A.* No, none whatever.
1041. *Q.* Where did you go first? *A.* We visited the 400-foot level first.
1042. *Q.* And you were taken everywhere you wanted to go? *A.* Yes.
1043. *Q.* Where did you go from the 400-foot level? *A.* To the 500-foot level.
1044. *Q.* Did you go below the 500-foot level in the Central? *A.* Yes.
1045. *Q.* Did you see the ground which was knocked about? *A.* Yes.
1046. *Q.* Did you see the cavity at the 500-foot level? *A.* No, not at the 500; it was at the 400-foot level.
1047. *Q.* I suppose you noticed the roof of the cavity was solid ground? *A.* Yes.
1048. *Q.* Which way did the creep seem to go? *A.* From the Central side it seemed to go to the south boundary at the 400-foot level.
1049. *Q.* I believe on the following day you went to the South Mine? *A.* Yes.
1050. *Q.* You had no difficulty in getting down that mine either? *A.* No, not the least.
1051. *Q.* What did you inspect there? *A.* The first place we went to was at the 500-foot level.
1052. *Q.* And from there? *A.* We were taken into the drive as far as we could get. It was filled up with fresh broken mullock. From there we were taken to the 600-foot level.
1053. *Q.* And you saw the two edges of the creep? *A.* We went as far as we possibly could. We came up to where the drive was baulked up with new timber. After that we were taken to the 700-foot level, and it was just the same there at the 700 level as at the 600. We were taken in as far as we could go, but it was all baulked up to save the drives. From there we went to the 800, and there everything seemed to be in very good order.
1054. *Q.* Did you go down the main shaft between the 600 and 700 foot levels? *A.* Yes; down the main shaft.
1055. *Q.* You did not go down the ladder one? *A.* No; down in the cage all the way.
1056. *Q.* How did the creep appear to run in the South Mine? *A.* From the South Mine it all appears to have run towards the Central Mine.
1057. *Q.* Showing that apparently the fault, if any, was on the boundary? *A.* Yes.
1058. *Q.* I suppose you afterwards inspected the surface?
1059. *Q.* You saw that fall from the surface? *A.* Yes.
1060. *Q.* Did you notice how the timbers were crushed and run together on the lower levels? *A.* As far as we went, we could not get in to see the worst of it.
1061. *Q.* What conclusion did you come to from what you saw? *A.* The only conclusion I could come to was that there was a cavity somewhere near the boundary of the two blocks, the South and Central, and the timber gave way in one of the mines and so the disaster.
1062. *Q.* Have you worked in either of these mines in the old days? *A.* I have not worked in either of the mines since 1893.
1063. *Q.* You know nothing of the old workings? *A.* In the Central. I only worked in the South a few weeks.
1064. *Q.* You remember the old workings? *A.* Yes; but they are very much older now.
1065. *Q.* What was the highest level you ever worked at in the Central Mine? *A.* At the 200-foot level.

1066. *Q.* Do you remember what was the size of the stope—was it large or small? *A.* Fairly large at the time, but we only worked out what was the best of it.
1067. *Q.* Oxidised ore? *A.* Yes; if they came to anything that was not considered A1, the place was stopped.
1068. *Q.* What filling was done there in the old days? *A.* Nothing whatever.
1069. *Q.* Were timbers put in? *A.* Yes; square-set timbers alone.
1070. *Q.* Where was this particular stope? *A.* I worked from close on the south boundary to the northernmost part of the South Mine.
1071. *Q.* Did the same system prevail right through? *A.* Yes; it was bulked with square-set timbers.
1072. *Q.* You have had a wide experience of mining;—there was a movement, I believe, in the South or Central Mine on the boundary in June last? *A.* I do not remember hearing of it.
1073. *Q.* If a movement occurred at that point, might it not loosen the timbers? *A.* Yes; it would, without doubt.
1074. *Q.* From what you saw on the surface of the South Mine, do you not think it would be a fall in one of the old stopes which would drive the earth right through? *A.* Scarcely. If the bottom levels were mullocked up, it could not reach very far down.
1075. *Q.* In 1893 it was the universal practice to secure the stopes with square sets? *A.* In the early days.
1076. *Q.* In 1893 it was considered the best method of securing the stopes? *A.* Yes.
1077. *Q.* On your inspection of these mines after the accident, when in the Central Mine, you said the timbers seemed to go towards the South Mine? *A.* The trend of the ground was towards the south.
1078. *Q.* And further down from the 400 to the 500, the trend was still towards the south;—apparently the lower you got, the nearer it got to the South Mine? *A.* I could not say that. I did not know the distance we were from the shaft on each level.
1079. *Q.* For the purpose of having the fullest benefit of your experience, let me ask—if the Central Mine have pushed on the work to such an extent to be able to show you the creep 150 feet nearer the south boundary than when you saw it last, would it not assist you greatly in coming to a conclusion as to how the fall occurred? *A.* Perhaps it would; but I could not say so.
1080. *Q.* Would it not be beneficial that another visit should be made by you and your fellow experts? *A.* I could say it might be beneficial.
1081. *Q.* Do you think any harm could be done by it? *A.* No; I do not see where there could be any harm.
1082. *Q.* At the time of the creep a great deal of the ground on each side was closed to you—you could not see that? *A.* We only got to within a certain distance.
1083. *Q.* So the conclusion you came to, I take it, is that there was a cavity somewhere in the vicinity of the South and Central boundary that caused the creep; the timbers gave way; where do you think they would be most likely to give way—where the timbering was with mullock or without mullock? *A.* The timbering without mullock would be most likely to go away.
1084. *Q.* Well mullocking tends to the safety of the mines? *A.* It is the best possible way I know of.
1085. *Q.* On the 500 level of the South Mine, do you know how close you got to the boundary? *A.* I think 25 or 26 feet.
1086. *Q.* On the 600-foot level, how close did you get? *A.* We visited two points. They told us one point was 20 feet and the other two sets—about 12 or 14 feet.
1087. *Q.* At the 700 level? *A.* I think somewhere about 25 feet at the 700 level.
1088. *Q.* You did not go down in the winze;—you went down in the cage? *A.* Yes, on each occasion.
1089. *Q.* So, practically, on the level itself, you examined and could see the end of the ground and the nature of it at the boundary? *A.* Yes, that is correct.
1090. *Q.* I think, in answer to the Commissioner, you said the roof of the cavity was hard ground? *A.* As far as I could see.
1091. *Q.* Would that not lead you to the conclusion that the break away did occur underneath the 400 level, and the stuff had gone down? *A.* Yes.
1092. *Q.* I think neither in the Central or the South Mines could you discover where the fall had run to? *A.* In neither mine could we see that.
1093. *Q.* I take it, in your opinion, the fall must have occurred first below the 400-foot level? *A.* Yes, decidedly.
1094. *Q.* Could you give an opinion at what level? *A.* No.
1095. *Q.* Except that it occurred below the 400 level? *A.* Except below the 400-foot level.
1096. *Mr. Wainwright (representing the South Mine). Q.* You told us that on the 400 level the general trend seemed to be towards the south;—would you be surprised to learn that the creep extended further north at the 500 level than at the 400? *A.* I only go by what I saw.
1097. *Commissioner.] Q.* You said in both mines the trend was towards the boundary? *A.* Yes; from what I saw, it went towards the boundary.
1098. *Mr. Wainwright.] Q.* When you visited the Central Mine, you got in some distance from the boundary; you said the distance varied from 20 to 25 feet;—would you think the cavity was over to the South or Central side? *A.* I could not say where it would be.
1099. *Q.* It would be somewhere near the boundary, but not necessarily in the South Mine? *A.* I could not say exactly.
1100. *Commissioner.] Q.* Have you worked in either of the mines of late years? *A.* Not since the middle of June or July, 1893.
1101. *Q.* In your visits to the two mines, how did you find the filling as far as you saw? *A.* They were fairly well filled—both mines.
1102. *Q.* You have worked in other mines since 1893? *A.* Yes, in the other mines constantly.
1103. *Q.* So if that stope was filled with square sets and mullock, what would be the shrinkage? *A.* I have no idea. I know it does shrink a good deal, but I have no idea of the proportion.
1104. *Q.* Do you think it would be as much as one-third? *A.* I do not think it would go more than one-third. It might be one-third.
1105. *Mr. Hall.] Q.* That would be 33 feet in 100? *A.* It would all depend upon the depth of filling.
1106. *Commissioner.] Q.* It all depends upon whether it is filled from the top;—it would be loose? *A.* No.

Witness—C. Richards, 13 March, 1903.

1107. *Q.* I suppose it would be less in an open stope mining where you work on filling than in square sets
A. No ; I do not think it would be much less in the open sets.
 1108. *Q.* There would be very little difference? *A.* Very little difference.
 1109. *Mr. Hall.] Q.* Do you think the shrinkage of mullock would be 33 feet in 100? *A.* Yes, if it was filled from the level or from the 500 to the 400 in the cross. It would without doubt shrink down.
 1110. *Q.* That is, leave a cavity of 33 feet in 100? *A.* Quite likely it would.

[Witness left.]

Charles Frederick George King, called in, sworn, and examined:—

1111. *Commissioner.] Q.* What is your full name? *A.* Charles Frederick George King.
 1112. *Q.* You are a miner, living in Broken Hill? *A.* Yes.
 1113. *Q.* What experience have you had as a miner? *A.* About nine or ten years.
 1114. *Q.* All in Broken Hill? *A.* No.
 1115. *Q.* What experience have you had in Broken Hill mines? *A.* Two years ago I came here.
 1116. *Q.* And you have had prior experience, where? *A.* At Captain's Flat ; at Miles, near Dubbo ; Cobar, around Orange, Lucknow, Mount David, Mitchell's Creek, and in Victoria.
 1117. *Q.* What mines have you been employed in in Broken Hill? *A.* First at Block 14 ; I was there seven weeks. Then I went into the big mine, and worked there three months, at Block 10 a shift. I left it because it was bad. I went back to the big mine.
 1118. *Q.* How long were you in the Central or South Mines? *A.* About eighteen months, on and off. I have never worked in the South Mine.
 1119. *Q.* What particular place have you been working in in the Central Mine? *A.* I worked on the 700 A 4 stope for about five or six months at one time.
 1120. *Q.* When were you working there last? *A.* I am working there at the present time.
 1121. *Q.* At about the time of the accident, where were you working? *A.* Previous to the accident I was between A 4 and 5 on the south boundary on the eastern lode on the foot wall side.
 1122. *Q.* What particular work were you doing? *A.* I was sinking a winze previous to the accident on the 400-foot level. I was sinking a winze to the movement that took place some time in June.
 1123. *Q.* Did this movement run towards the south? *A.* Yes. It was necessary to sink a winze to see what movement took place. That is about four sets from the south boundary, as near as I can judge. The stope there is about three sets high and four sets wide. This was on the 400 level. The winze started in the centre, about four sets from the boundary. There was continual heavy falling which came from the South Mine between the 400 and 500 levels, as near as we could reckon. We considered it was unsafe at the time, and I mentioned the matter to the Inspectors one day when I met them in town.
 1124. *Q.* Which one? *A.* The two of them.
 1125. *Q.* Can you remember about the date? *A.* Yes, about the 13th of June or July—June, I think, last year. I asked them if they would mind coming up and trying to get in between the 400 and 500, and see what the movement was, and they came up and went into the South, and were there for about three or four hours. I met them again as I was coming on afternoon shift at the Central, and they told me they were not able to get down to that particular place between the 400 and 500 through the last fall that had occurred there in the South Mine. They visited the place where I was working while I was there.
 1126. *Q.* Both of them? *A.* Yes, both of them. They considered it was heavy and dangerous, but that we might be able to work it with safety. The underground-manager put another man to watch over us while we sank the winze. I wanted the Inspectors to see it, because I considered if there was a movement it was a trap for us.
 1127. *Q.* You told the Inspectors so? *A.* Yes. They were of the same opinion. Dawe and the Inspectors visited the old shaft, and they came to the conclusion it would be safer to put a drive into the South Mine, from the Central to the South Mine.
 1128. *Q.* From the old shaft, or from where the winze was? *A.* Right through the two boundaries. We had sunk the winze 20 feet at the time, and we continued to sink to about 44 feet ; then we came to some broken ground on the eastern side of the foot-wall and some timber of some worked-out ground.
 1129. *Q.* Filled? *A.* Yes, standing well. Over that there was a cavity some 16 feet deep.
 1130. *Q.* Over the timber? *A.* Yes, over the timber on the south end.
 1131. *Q.* What length or breadth would it be? *A.* It ran south-east up about 30 or 40 feet, as near as I could make out. The underground-manager and the Inspectors decided to refill it. Dawe cautioned us about going into it, but I lowered myself down after they had gone. I had a cable with an electric light on it. At the bottom, where the crack was running down, it went about 1 in 30. I got some fine mullock and rolled it down ; it never got to the bottom—I never heard it.
 1132. *Q.* It seemed to go for a considerable distance? *A.* Yes, going south. I was still filling there, and a trucker was sent with me. After the first four or five days we let it run down the shaft, and started filling till it got properly chock. My mate was taken away to put some heavy timber in the stope, and I went down and threw this dirt back and packed her tight. We were then sent on with this drive towards the south to see what had happened in the movement which had taken place.
 1133. *Q.* How far did you take it? *A.* In a south-easterly direction, about 32 feet.
 1134. *Q.* Was the country broken? *A.* Yes, especially the foot-wall of the South Mine after I got through the drive. While we were driving on the south east side it was very good.
 1135. *Q.* When you got through the solid country it was very broken ;—the country in the Central was good, but on the south it was broken? *A.* Yes. On the 13th June I was doubtful if I would get out of it, and I made a statutory declaration that it was unsafe, and I now produce it. [*Statutory declaration by Charles King, put in and marked Exhibit No. 12. Copy will be found at end of notes.*]
 1136. *Q.* After you put this drive in, what did you do? *A.* Heberle was working with me at the time, and we went through here, and there were about six or eight sets in the South Mine in this particular lode. It was some six or seven sets high, and the timber was standing as a skeleton. Occasionally a set or two had been packed up with mullock. Mullock had been thrown in them.
 1137. *Q.* Was this timber standing solid? *A.* A little of it on the western corner.

1138. *Q.* What size was this cavity? *A.* It had been a stope, and was between six and eight sets wide and six sets high.
1139. *Q.* Did you show this to anyone? *A.* Heberle saw it.
1140. *Q.* Did the underground-manager or the Inspectors see it? *A.* I do not know. I was on afternoon shift.
1141. *Mr. Hall.] Q.* This was in the South Mine? *A.* Yes.
1142. *Commissioner.] Q.* You came in from the Central? *A.* Yes. I explored it a bit further, and came to a place where miners had been working, for there was a bit of the remains of a cage which had probably been worked with a winch, and had been there some time. I went on 40 feet further and came to the foot-wall and got into the main gangway. There had been two or three pillars of ore of a carbonate nature, and it was crushed. This was about 60 or 70 feet from the boundary going south—going in towards the south of the Central Mine boundary.
1143. *Q.* You went along the drive;—was much of this open ground? *A.* Yes; all open except these occasional small pillars, four or six sets on the western side.
1144. *Q.* What height would the stope be? *A.* On the eastern side six or eight sets. I only had a candle.
1145. *Q.* It was timbered, but not filled? *A.* Not filled; standing like a skeleton. I returned to the foot-wall again and examined it. I found as many as three or four 10 x 10's in each line, and I could hardly walk through, it was so heavily timbered. We were offered a job to take out a bit of ground on the Central boundary; but we refused to take it on contract. We had had enough of that. My mate and I then went to the 500-level, and we worked there up to the time of the accident.
1146. *Q.* Were you on wages or contract? *A.* On wages on A 4 in the western corner.
1147. *Q.* What doing—stopping? *A.* No; getting out some mullock that rose up underneath the ore, going towards the shaft in the flat.
1148. *Q.* Were you working there until the time of the accident? *A.* Yes.
1149. *Q.* Did you notice anything unsafe about that stope? *A.* Heaving, but apparently safe. No movement ever took place in that part of the western side of the hanging-wall.
1150. *Q.* There were no signs of movement;—it seemed solid all round you? *A.* Splendid.
1151. *Q.* How far from the boundary were you working;—A 4 that would be? *A.* The hanging-wall side, 200 or 300 feet, for all I know from A 4 and eastern lode.
1152. *Mr. Wainwright.] Q.* You were working 300 feet from the boundary? *A.* I am speaking of A 4.
1153. *Commissioner.] Q.* Were you working on the boundary at 500 level? *A.* Yes.
1154. *Q.* What was the country like? *A.* Good.
1155. *Q.* Were the stopes well filled? *A.* Yes. So far as I could see.
1156. *Q.* Did you get into the South Mine at all? *A.* I could not, there was no opening, or I would have been in to have a look. When I was told next morning about the accident, I said I expected that.
1157. *Q.* You expected the creep;—why did you expect it? *A.* Only by observations there. Men who know their work have an idea. I had often made the remark that it might last five years or five minutes.
1158. *Q.* From what did you draw your conclusions? *A.* What I had seen in the bottom of that winze. Had the South Mine been properly filled on that point with mullock that movement would never have occurred. It is only natural that the mullock will go to the weakest place. The mullock in this stope was sufficient to burst that timber down.
1159. *Q.* Like a sensible man, you went to the Inspectors? *A.* Yes. I consider they are the "go-between" between the men and the Company if anything is wrong.
1160. *Q.* They gave you every attention? *A.* Yes, they did. They said if every man came to them and informed them of anything like that they would be much obliged to them.
1161. *Q.* They examined the ground and advised you as to the course to be followed? *A.* Yes.
1162. *Q.* As a miner, you found their advice good? *A.* Of course it is not for me, in my humble position, to judge; but I consider that there are not enough mine Inspectors for these mines, because I consider that in these mines no Inspector can go through and give it attention under three or four days.
1163. *Q.* How often do you think the Inspectors should go through the mines? *A.* At least once a week, and it should take three or four days, in my opinion, to examine the country and stopes.
1164. *Q.* Three or four days each? *A.* That is to go in every stope on the level.
1165. *Q.* At present we have four mines working and we have had two Inspectors? *A.* You will have more directly.
1166. *Q.* They could do all that is required, in your opinion? *A.* That might be; but I hardly think there is enough.
1167. *Q.* On your own showing if they took four days in each mine the two Inspectors to the four mines would be quite enough? *Q.* You must remember they have outside shows to attend to.
1168. *Mr. Wise.] Q.* Do you know B 5 chute, where Lyons was working? *A.* Yes.
1169. *Q.* Have you ever been up the stope where they were running the chute? *A.* I have gone down to the 500. I never went into it.
1170. *Q.* Do you know if there was ever a pillar below the 500-foot called A 3? *A.* There were some men working there, but I never worked there.
1171. *Q.* You know this particular pillar? *A.* I have seen one there.
1172. *Q.* Did you ever see men working there? *A.* Yes.
1173. *Q.* Do you know how much work was done there? *A.* I do not know. A party was working there.
1174. *Q.* Do you know their names? *A.* No; I think one was called Nobby and one Blackmore, or something like that. I cannot remember the names of every man on the Central.
1175. *Q.* Do you know anyone else besides Nobby and Blackmore? *A.* No, I do not.
1176. *Mr. Hall.] Q.* Was Heberle with you when you made this inspection into the South workings? *A.* Yes.
1177. *Q.* That place you were exploring, did it show any signs of having been attended to by the South management. *A.* No.
1178. *Q.* Do you think it possible for the South management to get into that place? *A.* I do not think so. They may have had some other road.
1179. *Q.* You did not report it to anybody on the Central because it was against orders to go there? *A.* No.
1180. *Q.* In your opinion, this creep was caused by the ground on the south side of the Central boundary not being properly filled with mullock? *A.* It is.

Witness—C. F. G. King, 13 March, 1903.

1181. *Q.* Did you visit that portion of the South ground on any later occasion? *A.* No. My mate was an older man than I, and he reckoned I was too venturesome poking about there.
1182. *Q.* Up where that cavity in the South Mine was, so far as the work you were doing in the Central Mine was concerned, when that winze was taken down 44 feet, you tipped mullock into it until you filled it up? *A.* There was a break which went down 16 feet.
1183. *Q.* Do you consider that the steps which were taken by the Central Mine was the safest thing to be done for the men? *A.* Yes. If the South portion had bearings to carry the weight, it would have saved the back portion of the Central Mine.
1184. *Q.* You think it was prudent and wise on the part of the Central management to have filled that up? *A.* Yes.
1185. *Q.* You did the filling? *A.* Yes. The weight must have been some hundreds of thousands of tons.
1186. *Q.* And there being no mullocked-up portion on the south side, it gave way? *A.* Exactly.
1187. *Q.* Did any of the officials of the Central Mine compel you to work in that winze against your will? *A.* Some of the men asked for a shift and they would not give it; they were sent back at 1s. a day. If I had been financial I would not have worked there.
1188. *Q.* You did not think it was a nice place to work? *A.* No.
1189. *Q.* Was not the purpose for which this winze was being sunk to ascertain whether any cavity existed consequent on the creep of 4th June and to mullock up to make sure? *A.* Yes, that was it, as far as I knew. A working man is never asked his opinion or consulted.
1190. *Q.* It follows as a natural corollary that the filling up of doubtful or dangerous places by the management is done for the security of the men and the safety of the mine? *A.* If the South portion had been done there it would have been safe.
1191. *Q.* I take it it was rendered unsafe by the skeleton nature of the South mine timbers? *A.* Yes.
1192. *Mr. Wainwright.] Q.* With regard to the early days of Broken Hill, was it usual to fill in or use square sets. *A.* It is not what they used to do.
1193. *Q.* He has only been here two years? I should imagine it was not because they have filled up with timber in other places.
1194. *Mr. Wainwright.] Q.* Where you went into the South Mine, it was broken about in the South Mine at the 400-foot. *A.* On the foot-wall side, in the gangway. It had some 10 x 10's.
1195. *Q.* You said the timber was standing? *A.* On the west corner it was; it was burred up.
1196. *Q.* You said the South management could not get into that place? *A.* In my opinion —
1197. *Q.* They might have been able to get in as you did?
1198. *Mr. Hall.] Q.* Is it possible to get in that way now? *A.* I could not say.
1199. *Q.* That declaration was made before you went into the South Mine exploring? *A.* Yes.
1200. *Mr. Godfrey, Mining Inspector.] Q.* What are the names of the men who were working on shift in that winze? *A.* Mert Daley; but he left.
1201. *Q.* Do you remember the time Mr. Milne and I came down? *A.* Yes.
1202. *Q.* What men were there then? *A.* Mert Daley and Tom Goodman. I worked there until I came to the break.
1203. *Q.* Apart from the men being forced to work there, do you yourself think it was advisable to locate that break and fill it up. Do not you think the work was absolutely necessary? *A.* Yes, to save the mine.

[Witness left.]

Henry Rowe, called in, sworn, and examined:—

1204. *Commissioner.] Q.* What is your full name? *A.* Henry Rowe.
1205. *Q.* You are a labourer, living in Broken Hill? *A.* Yes, a trucker.
1206. *Q.* What mines have you been working in? *A.* The Central.
1207. *Q.* How long have you been employed there? *A.* Four years and a half.
1208. *Q.* In the month of October last were you employed on the 500-foot level? *A.* No.
1209. *Q.* Have you worked there? *A.* Yes, I have worked there.
1210. *Q.* When were you working there? *A.* Six months prior to the accident.
1211. *Q.* Do you know the chute B 5? *A.* Yes.
1212. *Q.* Have you trucked from that chute? *A.* Yes.
1213. *Q.* I believe that chute was often hung up? *A.* Yes, she used to hang up.
1214. *Q.* How did you set it going again? *A.* Go up into the stope and start it with a bar.
1215. *Q.* How did you get into the stope? *A.* Climb up about nine ladders.
1216. *Q.* And from the ladder-way which way did you go? *A.* We went north.
1217. *Q.* What sort of a track was it? *A.* We used to go through some sets and we had to crawl about 50 feet.
1218. *Q.* A sort of a drive was it? *A.* A gangway.
1219. *Q.* Covered overhead? *A.* Yes.
1220. *Q.* And you could walk part of the distance and crawl on your hands and knees afterwards? *A.* Yes.
1221. *Q.* How did you release the chute when you got to it? *A.* Poke it with a bar.
1222. *Q.* Could you do that kneeling down? *A.* A little chap, but a big chap would have to stretch out in it.
1223. *Q.* A big man would have to lie down? *A.* Yes, on his side.
1224. *Q.* You could kneel down? *A.* Yes, I have done it kneeling down.
1225. *Q.* What was the cause of its being filled up in that way—stuff from the chute? *A.* Mullock was tipped into it, and we had to clear it.
1226. *Q.* What was the reason of its being filled up leaving so little room;—was it just dust from the chute? *A.* No; it had been put there with the shovel.
1227. *Mr. Hall.] Q.* It was put there purposely? *A.* Yes.
1228. *Commissioner.] Q.* Did it appear dangerous to you in any way? *A.* I had not run the chute for eight or nine months previous to that.
1229. *Q.* When you did run the chute did it appear dangerous to you? *A.* No; I would not have gone into it if I had thought it was dangerous. It appeared safe when I was there last.
1230. *Q.* That was before the June creep? *A.* Yes.
1231. *Mr. Wise.] Q.* Supposing a big man went to run that chute, how would he come back? *A.* Turn round and crawl back.
1232. *Q.* Could he turn round? *A.* There was the size of a set to turn in.

1233. Q. What was the back like? A. All timbered.
1234. Q. Was it broken or crushed? A. I did not notice that it was crushed.
1235. Q. How long were you working in that particular place? A. Off and on, sometimes a week and sometimes a fortnight.
1236. Q. For how long? A. At various times.
1237. Q. Did you ever hear any timber creaking there? A. No, I never did.
1238. Q. You say a man would have to lie on his side; supposing the chute burst, what sort of a show would he have of getting out? A. Only the same way as he got in—turn round and crawl out.
1239. Q. When you ran the chute, how many men were there? A. Two.
1240. Q. I suppose one man could run the chute? A. Yes; one used to run it, and the other used to go up for company.
1241. Q. Was it a lonely place? A. Not too lonely.
1242. Q. What was the second man sent for? A. If anything happened.
1243. Q. To pull him out if he got caught in it? A. I expect so if he got caught.
1244. Q. Do you think a man could be caught in that place when he was lying on his side? A. Not unless the back came down.
1245. Q. What about stuff coming down the chute? A. It was not near that.
1246. Q. Would there be any chance of the chute bursting? A. No.
1247. Q. Who was your boss? A. Crimp.
1248. Q. Used you to work three shifts? A. Yes.
1249. Q. When you were working on night-shift had you Crimp there to look after you? A. Ellis was there; he used to be there night-shifts.
1250. Q. What position does he occupy in the Central Mine? A. Shift boss.
1251. Q. When you crawled in on your hands and knees to this chute, did you see any timber below you? A. Mullock was under us.
1252. Q. Not timber? A. Timber at the side, but not underneath.
1253. Q. What sort of timber? A. Square sets.
1254. Q. What became of the square sets where you used crawl in? A. I have seen them when I went in to run the chute.
1255. Q. Did you ever try to find timber below the mullock? A. I was always under the impression there was mullock down to the sill floor, nine or ten sets below.
1256. Q. Did you see the tops of the timbers when you left the chute? A. Yes.
1257. Q. This mullock did not come from the chute; it was put there before for the safety of the timbers? A. Yes.
1258. Q. So that you had not much room? A. If you had taken away some mullock you would have plenty of room.
1259. Q. You said the timber in the stopes was all square sets? A. Yes.
1260. Q. This mullock you had to crawl over, was there any timber there at all; I want to find out how far below the mullock the top of the sets of timber was? Q. I do not understand what you mean.
1261. Q. When you had to crawl on top of the mullock? A. She was mullocked up right down to the sill floor.
1262. Q. Where does the timber come in? A. It was underneath.
1263. Q. Where did that mullock come from—out of the chute? A. I did no help to put it there.
1264. Q. Did you complain about there being no room there? A. No, I never complained.
1265. Q. Did you ever see Mr. Hebbard at that slide chute? A. I have seen him in the stope, but not down the chute.
1266. Q. Did you ever see him at the slide chute? A. No.
1267. Q. Did you ever see Mr. Dawe there? A. Yes.
1268. Q. How many times? A. I have seen him once or twice; I have not often been there.
1269. Q. How long ago? A. I could not say how long.
1270. Q. Do you know Godfrey and Milne? A. I have seen Mr. Godfrey at the mine.
1271. Q. Did you ever see him at the slide chute? A. No.
1272. Q. Where did you see Mr. Godfrey? A. Several places in the mine.
1273. Q. Not at this particular place? A. No.
1274. Do you know A 3 pillar in the Central Mine? A. Yes.
1275. Q. How long ago is it since you worked there? A. Six months ago.
1276. Q. This A 3, do you remember any miners working there taking out ground? A. No, I have never seen any.
1277. Q. Not above or below the 500 level? A. No.
1278. *Mr. Hall.*] Q. You said this mullock you crawled over was put there for the safety of the mine timbers? A. Yes.
1279. Q. You do not belong to the rabbit family, and therefore could not burrow down to see where the timbers were? A. No.
1280. Q. But you could see the timbers at the side of this place you went in, and you told us the mullock filled up three parts of the timbers? A. That is the set we had to crawl in.
1281. Q. You never complained of want of room? A. No.
1282. Q. Going up this ladder-way there was timber all the way? A. All the way.
1283. Q. I take it that from your experience you would say that timbers in the stopes where they are mullocked-up would be better for the safety of the mine and security of the miners than timbers standing skeleton-like with no mullocking? A. Yes.
1284. *Mr. Wise.*] Q. This mullock that was up 3 feet from the top sets, would it have cost much to remove it? A. It might have been dangerous to do it.
1285. Q. Would it make any difference if it was taken out? A. It would have given them more room to work.
1286. *Mr. Hall.*] Q. Did you ever hear any of the truckers or those working there ask it to be cleared out to give them more room? A. I never did.
1287. *Commissioner.*] Q. Were you in the mine at the time of the accident? A. Yes.
1288. Q. Where were you then? A. At the 700 level.
1289. Q. What attracted your attention? A. I heard the rushing of dirt, and I got the dust and wind.
1290. Q. Did you hear anything like a fall? A. It sounded to me like a chute running.

Witness—H. Rowe, 13 March, 1903.

1291. *Q.* Simply the dirt running down? *A.* Yes.
 1292. *Q.* Were you anywhere near it? *A.* I was nowhere near where it came.
 1293. *Q.* You heard no noise like a fall? *A.* No; it was like a chute running.
 1294. *Q.* What part of the 700 level were you in? *A.* On the south side of the Kintore shaft.
 1295. *Q.* How far from the present signs of the creep? *A.* Just about under it.
 1296. *Q.* How far were you from where the timbers were crushed? *A.* I did not see any timbers crushed.
 1297. *Mr. Hall.] Q.* On the night of the accident did you notice an extraordinary number of rats about?
A. No.
 1298. *Q.* Did not all your mates complain that they had noticed an extraordinary number of rats? *A.*
 No one told me they saw rats.
 1299. *Mr. Wise.] Q.* You were not working on the 500-foot level that night? *A.* No.

[Witness left.]

Edward Downes, called in, sworn, and examined:—

1300. *Commissioner.] Q.* What is your full name? *A.* Edward Downes.
 1301. *Q.* What is your occupation? *A.* A mullock.
 1302. *Q.* What experience have you had? *A.* Three years in the Central Mine.
 1303. *Q.* In October last, what part of the mine were you in? *A.* C 3 at the 600 level.
 1304. *Q.* Were you ever at the 500 level? *A.* I was there about twice, in that winze. That is some time ago.
 1305. *Q.* How long prior to October? *A.* Somewhere about ten months before October.
 1306. *Q.* Do you know B 5 chute at the 500 level? *A.* Yes, on the sill floor.
 1307. *Q.* Have you ever been up there when that chute was hung up? *A.* Yes, twice.
 1308. *Q.* How did you go up? *A.* Climbed about eight ladders and crawled on my hands and knees about 40 or 50 feet to the chute.
 1309. *Q.* It was through the gangway you had to crawl? *A.* Yes.
 1310. *Q.* Timbered all round? *A.* Yes.
 1311. *Q.* Was the timber broken in the gangway where you had to crawl? *A.* I did not see any.
 1312. *Q.* When you got to the chute, what did you do? *A.* One man had to lie on his side or back and poke it to make it come?
 1313. *Q.* Did it appear to you to be dangerous? *A.* No.
 1314. *Q.* If it burst it would be dangerous to the men? *A.* I should say so.
 1315. *Q.* Would you have any objection to poking it yourself? *A.* Not the slightest.
 1316. *Q.* How was the country filled round where you came down; was it mullocked up? *A.* I think it was all mullocked up.
 1317. *Q.* As far as you saw you saw no danger? *A.* No.
 1318. *Q.* Have you ever worked on the 600 or 700 levels? *A.* Yes, all except the 500. I do not think I have been there ten shifts in three years.
 1319. *Q.* Do you know of any broken ground in the 600 or 700-foot levels? *A.* No.
 1320. *Mr. Wise.] Q.* Did you notice when you were in there how your mate came away from that chute?
A. He came back about a set and then turned round.
 1321. *Q.* He had to crawl? *A.* Yes, about a set.
 1322. *Q.* How many times did you run that chute? *A.* I went up twice with a mate.
 1323. *Q.* One man could run it? *A.* Yes.
 1324. *Q.* Why did two go? *A.* Two go all places.
 1325. *Q.* Supposing one witness says you could knock that chute by kneeling down on your knees, would he be stating facts? *A.* I could not say, it is so long since I was there.
 1326. *Q.* The particular time you were there? *A.* It was safe while I was there.
 1327. *Q.* If a witness says he could knock the chute by kneeling down? *A.* I think he would be stating a falsehood.
 1328. *Q.* Did you hear timbers creaking while you were there? *A.* No.
 1329. *Q.* How many shifts were you working? *A.* Three shifts.
 1330. *Q.* When it came night-shift who was in charge of the truckers? *A.* Crimp was our boss.
 1331. *Q.* Only Crimp? *A.* I could not say.
 1332. *Q.* Was anyone else besides Crimp there? *A.* Crimp has been in charge of the mullockers on night-shift for the last three years.
 1333. *Q.* Were there other bosses there? *A.* Yes.
 1334. *Q.* How long was he in sole charge of the men? *A.* I do not know.
 1335. *Commissioner.] Q.* You were down the mine the morning of the accident? *A.* Yes.
 1336. *Q.* Where were you? *A.* C 1 on the 600 level in the stope.
 1337. *Q.* On what side of the Kintore shaft? *A.* Close to Block 10 boundary. I knew nothing about the creep till a quarter to 4 o'clock.
 1338. *Mr. Hall.] Q.* You do not say Crimp was in charge of the mine solely on the night of the accident?
A. No, in charge of the mullockers.
 1339. *Q.* That is, the body of men to which you belong? *A.* Yes.
 1340. *Q.* A witness here has said that a small man could bar down that chute while kneeling, but that a big man would have to lie down; is there anything false about that? *A.* I think that is right.
 1341. *Q.* That would not be a falsehood? *A.* No.
 1342. *Q.* In getting to the 600 level did you pass the 500? *A.* I passed down the cage, that is all.
 1343. *Q.* At the 600 did you notice a particularly large number of rats there? *A.* No.
 1344. *Mr. Wise.] Q.* You said that this gangway to the chute was timbered all round? *A.* It was timbered both sides. That is so far as I could remember.
 1345. *Q.* How came you to see the timber all round? *A.* I went along one side myself.
 1346. *Q.* You would not know if there was timber underneath? *A.* No, I would not know.
 1347. *Q.* There might not have been timber there at all as far as you knew? *A.* No.

[Witness left.]

Albert Crimp, junior, called in, sworn, and examined:—

1348. *Commissioner.*] Q. What is your full name? A. Albert Crimp.
 1349. Q. What are you? A. A mullocker at the Central Mine.
 1350. Q. In what part of the mine? A. In various levels, 400, 500, 600, 700 and 800 levels.
 1351. Q. When were you working on the 500 level? A. The last time was about four months ago.
 1352. Q. Were you working there prior to October? A. The early part of October.
 1353. Q. At the B 5 chute? A. No.
 1354. Q. You have worked at the B 5 chute? A. Yes.
 1355. Q. How long prior to the accident? A. About ten months before the accident. Not since ten months before the accident.
 1356. Q. Not since? A. No.
 1357. Q. Have you run that chute at various times when it hung up? A. I was always there when B 5 hung up.
 1358. Q. How did you start it going again? A. By poking it with a bar.
 1359. Q. You had ten floors to go up? A. The gangway on top of A 3 block.
 1360. Q. How did you get from the gangway? A. Crawled on my hands and knees for several sets and got to the chute.
 1361. Q. You have worked the chute? A. Yes, I think I was the first one to ever work that chute.
 1362. Q. You could run it kneeling down? A. Yes.
 1363. Q. Was there anything dangerous about the working of it that you could see? A. No. If I had thought so I would not have gone there.
 1364. Q. Was there any movement along the timbers? A. No.
 1365. *Mr. Wise.*] Q. It is about ten months ago since you worked that chute? A. Yes.
 1366. Q. There has been a lot of alteration in the mine since that? A. Yes.
 1367. Q. If you went back there before the accident, you would not be able to find your way about? A. Yes, I think I would.
 1368. Q. Just above the 500 level did you see any mining? A. I have seen one party working there.
 1369. Q. How long ago? A. I cannot exactly remember how long ago.
 1370. Q. Do you remember the men's names or the amount of ground they took out? A. No. I was one of the last men who ever worked above 600 level.
 1371. Q. How often have you been there? A. Up and down very often at different times.
 1372. *Mr. Hall.*] Q. As far as you can see, is the Central Mine well stoped up?
 1373. Q. What level were you on the night of the accident? A. On the 700 level.
 1374. Q. Whereabouts at the time of the accident? A. In the north drive in the 700.
 1375. Q. North of the Kintore shaft. A. Yes.
 1376. Q. In your experience of the Central mine, did you find the bosses took every precaution for the safety of the men? A. Yes.
 1377. Q. In your experience, did you have to complain of any danger? A. None whatever.
 1378. Q. In your opinion there was no danger? A. No, no danger whatever.
 1379. *Commissioner.*] Q. You were in the mine the night of the accident? A. Yes.
 1380. Q. Did anything attract your attention at the time? A. Nothing whatever.
 1381. Q. Because you were in the north part of the mine? A. In the north part of the 700-foot level.

Witness left.

(The Commission adjourned till Monday, 16th March, at 10.30 a.m.)

MONDAY, 16 MARCH, 1903.

[The Commission sat at 10.30 a.m., in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
 BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. W. E. Wainwright, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary Barrier Branch Amalgamated Miners' Association, appeared to represent that Association.

Murty Daley, called in, sworn, and examined:—

1382. *Commissioner.*] Q. What is your full name? A. Murty Daley.
 1383. Q. What are you? A. A miner.
 1384. Q. What mining experience have you had? A. About six years.
 1385. Q. All in Broken Hill? A. Yes.
 1386. Q. What mines principally? A. The Central and Junction mines.
 1387. Q. Have you ever worked in the South Mine? A. No.
 1388. Q. How long have been in the Central Mine? A. About two years, on and off.
 1389. Q. Are you working in the Central Mine now? A. No.
 1390. Q. You were working on the 400-foot level in the Central Mine last year? A. Yes.
 1391. Q. When was that about? A. Some time last year.
 1392. Q. What were you working at? A. In the winze.
 1393. Q. Who were your mates? A. Tom Goodman.
 1394. Q. And I think Charles King was working there? A. Yes, he was on another shift.

1395.

Witness—M. Daley, 16 March, 1903.

1395. *Q.* Was there anything particular about the work. Was it dangerous work? *A.* Well no, I did not consider it was at the time.
1396. *Q.* You were not told it was dangerous? *A.* Well, the ground was all broken.
1397. *Q.* You did not consider it dangerous? *A.* No.
1398. *Q.* Were you there when that drive was put in to the South Mine? *A.* No.
1399. *Q.* How long were you working in this particular place? *A.* About three weeks.
1400. *Q.* You saw the cracks, and thought the ground was safe? *A.* Yes.
1401. *Q.* Were the stopes mullocked? *A.* No.
1402. *Q.* Open stopes? *A.* Yes, where we were working, they were timbered.
1403. *Q.* Were the mining inspectors there while you were at work? *A.* Yes.
1404. *Q.* How often? *A.* Once.
1405. *Q.* Who was your shift boss? *A.* Bob Cox.
1406. *Q.* How often did you see him? *A.* Twice a shift.
1407. *Q.* Did you finish the work you were on there? *A.* No; I left because I was bad.
1408. *Q.* You did not leave because the place was dangerous, or anything of that sort? *A.* No.
1409. *Mr. Wise.] Q.* Did you have anything to do with the drive into the South workings? *A.* No.
1410. *Q.* How long were you working there altogether? *A.* About three weeks.
1411. *Mr. Hall.] Q.* You stated to the Commissioner that the ground was open stope and timbered? *A.* Yes.
1412. *Q.* Is that at the start of the sinking of the winze? *A.* Yes.
1413. *Q.* When you were sinking the winze what were you sinking through? *A.* Friable ore.
1414. *Q.* An ore body? *A.* Yes.
1415. *Q.* You had no complaint to make about this place? *A.* No.
1416. *Q.* You made none to any of the bosses? *A.* No.
1417. *Q.* Or to the Mining Inspectors when you saw them? *A.* No.
1418. *Q.* As far as you knew, was everything done by the management of the Central mine for the safety of the mine and the security of the miners? *A.* Yes.
1419. *Q.* In your opinion was this winze necessary work? *A.* Yes, in my opinion.
1420. *Q.* It had to be done? *A.* Yes.
1421. *Mr. Wainwright.] Q.* In the course of the sinking of this winze, did you hear any falls of ground? *A.* Yes, I heard some rumbling noise, but they told me it was the chute running.
1422. *Q.* What were you putting the winze down for? *A.* To find out where the ground fell to below.
1423. *Q.* You were using explosives while you were sinking? *A.* Yes.
1424. *Q.* Do not you think the use of explosives would shift ground directly underneath? *A.* I could not say.
1425. *Q.* Do not you think it would be possible to shake some of the stone in the winze? *A.* No.
1426. *Q.* You know the backs about which a witness made a statutory declaration? *A.* Yes.
1427. *Q.* Did you think it was safe to work there, seeing that these cracks were there? *A.* Yes, I thought it safe enough at the time.
1428. *Q.* You did not think you were in a trap? *A.* It is hard to say.
1429. *Q.* Did you think it advisable policy to put a drive into the South Mine as a means of safety? *A.* Yes.
1430. *Q.* You thought the ground to the south was safer? *A.* Yes, that winze was.
1431. *Mr. Hall.] Q.* These noises you heard, did they proceed from underneath or from the direction of the South Mine? *A.* They sounded to me like coming from the South Mine overhead.
1432. *Q.* Do you know if the drive to the south was put as a means of additional escape in the case of a collapse taking place in the Central Mine? *A.* No.
1433. *Mr. Wainwright.] Q.* You said in answer to Mr. Hall you thought this fall came from above in the South Mine, and you said you had been told it was the mullock chute running;—was that chute in the South Mine or the Central? *A.* Over our heads towards the South.
1434. *Q.* From whom did you hear that? *A.* My mate, Goodman, told me.
1435. *Q.* He told you he thought it was mullock running? *A.* Yes, the main mullock pass in the Central.
- 1435½. *Mr. Wise.] Q.* Do you know this B 5 chute where the collapse occurred? *A.* I could not say exactly.
1436. *Q.* In this place where you were sinking a winze, was an extra man placed there? *A.* There was a third man there.
1437. *Q.* What was his duty? *A.* At the windlass.
1438. *Q.* Was there a man to watch things and give warning? *A.* This man on top was.
1439. *Q.* Was he the one who was up there to do nothing else but give warning? *A.* No, he was to help to pull dirt.

[Witness left.]

John Simmons, called in, sworn, and examined:—

1440. *Commissioner.] Q.* What is your full name? *A.* John Simmons.
1441. *Q.* What is your occupation? *A.* A miner.
1442. *Q.* What mining experience have you had? *A.* Six years, all in Broken Hill.
1443. *Q.* What mines have you been working in? *A.* In the Central Mine.
1444. *Q.* Were you working in the Central Mine in October last? *A.* Yes.
1445. *Q.* Prior to the accident were you working on the 500-foot level? *A.* On the night of the accident I was on the 500-foot level.
1446. *Q.* How long had you been working there? *A.* Between six and seven weeks on the 500 level, and previous to that on the 400 level.
1447. *Q.* What was your work? *A.* At the time of the fall I was winch-driving at the 500 level.
1448. *Q.* Were you stoping previous to that? *A.* Yes, and working in the winze, at the A 4 stope at 400 level.

1449. Q. That was somewhere near the south boundary—the A 4 stope? A. Yes, within about four or five sets of the south boundary.
1450. Q. Were you ever near the winze put down by King and Daley? A. Yes, I was one of the party.
1451. Q. Who was your mate? A. King.
1452. Q. Were you given any special instructions about the work? A. Yes, we were given instructions by the respective foremen and managers to take all precautions.
1453. Q. I understand there was some danger in your work? A. Yes, we understood there was certain danger.
1454. Q. Who took you to the work and showed you where to begin? A. Mr. Dawe, the underground manager.
1455. Q. Did you see the Mining Inspectors there? A. Yes. They gave us instructions to be very careful.
1456. Q. You knew the work you were doing was dangerous work? A. Yes, to a certain extent. We knew it wanted an amount of caution with it.
1457. Q. You knew there had been a creep somewhere previously? A. Yes, a fall some time before.
1458. Q. When the winze was finished were you at the bottom? A. Yes.
1459. Q. How did you go down? A. Went down with the windlass and got through on the break on the old timbers.
1460. Q. You broke through on the old stope? A. Yes.
1461. Q. Was it timbered and mullocked? A. No, very little mullock, only that which had fallen into it.
1462. Q. Had it ever been mullocked up? A. I could not say whether it had or not.
1463. Q. Could not you tell by looking at the timber if it had been mullocked up or not? A. I did not go very far to the north, I only went to the south. We went as far as we could go there. The places back were mullocked up except the gangway.
1464. Q. Did there appear to have been much shrinkage in the filling? A. Yes, on the south where there had been no work done. At the south-eastern end the ground had gone. It went away on the underlay south or south-east.
1465. Q. Was there a large cavity there? A. Yes, a very large cavity, but you could not get to the bottom, we could only go down a certain depth.
1466. Q. You could not see very well, you had only a candle. A. We could not see to the bottom, it was too far down.
1467. Q. Were you there when that drive was put in towards the south? A. No, I was shifted to the 500 level.
1468. Q. Were you there when the mullock was put down the winze? A. Yes.
1469. Q. Was it filled up? A. It was filled to the bottom of the winze when we left.
1470. Q. Have you any idea of the quantity of stuff put into it? A. No.
1471. Q. Do you know how long they were filling it? A. No, I could not say.
1472. Q. Did King go down that cavity as well? A. Yes.
1473. Q. What pillar were you working at on the 500 level? A. At D 1 stope.
1474. Q. At the northern end? A. Yes.
1475. Q. Were you down the mine on the night of the accident? A. No. I was on day-shift then.
1476. Q. From the work you have seen in the Central Mine how have you found the places left after worked out? A. The best of the lot, although I have not had much experience of the other mines.
1477. Q. All filled up? A. Yes, all filled.
1478. Q. How did you find the supervision of the Central Mine. How often did you see the shift bosses there? A. We used to see him twice or three times.
1479. *Mr. Wise.* Q. You saw the Mining Inspectors there? A. I saw Godfrey there twice.
1480. Q. According to your opinion the mine is well mullocked up? A. As well as any I have worked in.
1481. Q. Have you had an opportunity of going round and inspecting the workings? A. I have been pretty well through the mine. I have been working on every level, and have been pretty well all through the mine.
1482. Q. Supposing you were working in one place and went away, when you came back you might find the place altered? A. Yes, after being away for a time.
1483. Q. Do you know the B 5 chute? A. Yes, I know pretty well where it is.
1484. Q. Do you know anything about it? A. No.
1485. Q. Did you ever do any stoping at the 500 level? A. No.
1486. Q. Mr. King, one of the witnesses, said when you broke into the South Mine there were a lot of open sets;—did you go in with him? A. One could only get through at a time. I went in after he had been in.
1487. Q. What was it like? A. The ground was all down, and the timber crushed a bit.
1488. Q. How many sets of timber were standing open? A. I could not say.
1489. Q. You had an opportunity of seeing? A. I never took that much notice to be able to say how many.
1490. Q. Did you see anything of a cage or a bucket there? A. There was a truck standing there where we broke through, I never went further back.
1491. *Mr. Hall.* Q. I understand you broke through at the bottom of the winze? A. Yes.
1492. Q. You were not there when the drive was put into the south with King? A. No.
1493. Q. You are talking about something below it—42 feet below it? A. Yes.
1494. Q. When you went to the north you came on timbers and well-mullocked ground? A. As far as I know, I did not go north to see.
1495. Q. Was the cavity in the South Mine or the Central? A. Going towards the South Mine.
1496. Q. You could not say how far it extended? A. It was a very big cavity.
1497. Q. Had you any reason to make any complaint to the shift bosses about any neglect? A. There was no neglect, as far as I know.
1498. Q. Every caution and care was exercised by the management? A. Yes; we were told to take every precaution and see what was ahead of us.
1499. Q. This sinking of the winze was necessary work? A. It was necessary to find out where the break was.
1500. Q. You found the break;—in which direction, apparently, was the break going? A. In a south-easterly direction.
1501. Q. In the direction of the South Mine? A. Yes.

Witness—J. Simmons, 16 March, 1903.

1502. *Q.* When you went down you saw a truck ;—what was it used for—mullocking? *A.* I could not say. It was pretty rusty, and had not been in use for a long time.
1503. *Q.* Could you say how far from the bottom of the winze you sunk was the cavity ; you went south or south-east ;—how far south of the winze was it? *A.* Close on 20 feet ; she went away on the underlay.
1504. *Q.* An underlay towards the South? *A.* Yes ; towards the South.
1505. *Q.* If any slip occurred, it must have followed that course and gone into the South? *A.* Yes ; gone into the South. The bottom of the ground seemed to be turned into the South ; it had gone down.
1506. *Q.* Twenty feet would be four sets, would it not? *A.* Barely four sets.
1507. *Q.* While working in the winze did you hear any sound of falling ground? *A.* Yes ; I heard ground falling, and had to come back into the drive.
1508. *Q.* In which direction did you hear it? *A.* It seemed to be falling on the south-eastern side of us.
1509. *Q.* That would be in the South Mine, as far as you could judge? *A.* It is a very hard thing to tell where sound comes from. The sound came from a south-easterly direction.
1510. *Q.* It had, apparently, come from the direction of the cavity you saw? *A.* Yes.
1511. *Q.* You have worked as a miner, and you tell me that it was the practice in the Central Mine for the miners to strip certain ground and for the mullockers to come after them and fill up this strip? *A.* That was the practice usually adopted there.
1512. *Q.* In your opinion, is it the safest practice to timber and mullock after stripping the ground of ore? *A.* I think that is as safe a way as any.
1513. *Q.* Were you satisfied with the supervision of the shift bosses and managers? *A.* Yes ; we were quite satisfied. We always had them twice a shift there.
1514. *Q.* That is as often as necessary? *A.* Yes.
1515. *Mr. Wainwright.] Q.* When you went down the winze you saw some timber? *A.* Yes ; when we got to the bottom of the winze.
1516. *Q.* Where did you see the truck? *A.* That was right underneath the winze we sank.
1517. *Q.* This timber you saw with no mullock was not in the South? *A.* This was on the north side of the Central.
1518. *Q.* Could you not get to the bottom ;—how far could you go, it was going down on a rill? *A.* We went down as far as we could go.
1519. *Commissioner.] Q.* About these falls, were they below or above you? *A.* Below us.
1520. *Q.* They were to the south-east of you? *A.* Yes ; according to the sound.
1521. *Q.* Could it be mullock running through a chute? *A.* There was none running. I do not think it was mullock, it was too dead a fall ; there was one sudden drop and then a stop.
1522. *Q.* That was below you? *A.* Yes.
1523. *Mr. Wise.] Q.* In answer to Mr. Hall, you said that when a miner took out a strip of ground, and the mullocker came after and filled—you said it was generally done? *A.* It is generally done in the Central.
1524. *Q.* Always? *A.* Always done after the stopers.

[Witness left.]

Thomas James Prisk, called in, sworn, and examined :—

1525. *Commissioner.] Q.* What is your full name? *A.* Thomas James Prisk.
1526. *Q.* What is your occupation? *A.* A mullocker.
1527. *Q.* Where are you working? *A.* In the Central Mine.
1528. *Q.* How long have you been employed there? *A.* Two and a half years.
1529. *Q.* How long have you been at similar work? *A.* A little over three years—a few months.
1530. *Q.* Do you remember the accident in the Central Mine? *A.* Yes.
1531. *Q.* About that time where were you working? *A.* On the 500-foot level.
1532. *Q.* Who were your mates? *A.* Cooley and Brokenshare.
1533. *Q.* You were trucking from what chute? *A.* I was throwing up mullock into the top set.
1534. *Q.* Do you know where that mullock came from? *A.* It came from B 1 winze, from the 500 to the 600 level.
1535. *Q.* Do you know the chute they call B 5? *A.* Yes.
1536. *Q.* You know that chute was very often hung up? *A.* Yes.
1537. *Q.* Have you ever been up to let it go? *A.* Yes.
1538. *Q.* How did you go? *A.* Without much difficulty, as a rule.
1539. *Q.* You went up a ladder-way first? *A.* Yes ; then we went along a gangway, and then we went about fifteen or sixteen sets from the gangway.
1540. *Q.* How did you get along? *A.* Crawled along.
1541. *Q.* Had you to crawl right to the chute? *A.* Yes.
1542. *Q.* By crawling, you mean going on your hands and knees? *A.* Yes.
1543. *Q.* How did you release the chute? *A.* It was easy to release it with a bar.
1544. *Q.* Could you do that on your knees? *A.* Yes ; when I was there.
1545. *Q.* Was there any danger, so far as you could see? *A.* No.
1546. *Q.* You did not think there was any? *A.* No ; I did not.
1547. *Q.* Were you in the mine on the night of the accident? *A.* Yes.
1548. *Q.* Where were you at the time? *A.* I was half way between C 3 and B 3, coming down towards the water-tank.
1549. *Q.* Which side of the mine? *A.* On the north side.
1550. *Q.* What was the first thing you heard? *A.* A rush of wind, and I heard Lyons sing out.
1551. *Q.* Did you hear any fall? *A.* Yes ; afterwards, but not at the time.
1552. *Q.* The first you heard was a rush of wind? *A.* And afterwards I heard the falling of timber and mullock.
1553. *Q.* You could not tell whether it was above or below you? *A.* I could not swear to that. I could see the dust, and everything was coming from the South.
1554. *Q.* What did you do? *A.* I went to Lyons' assistance.
1555. *Q.* Where did you find him? *A.* Crawling out of the gangway on his hands and knees.
1556. *Q.* Which gangway? *A.* B 3.

1557. *Q.* How far from B 5 would that be? *A.* B 3 is the gangway—one side is B 3 and the other side B 5, fifteen or twenty sets away from the chute.
1558. *Q.* Could he walk? *A.* He was in the dark; he was afraid to walk, I think.
1559. *Q.* Did he tell where he had been at the time of the accident? *A.* He told me he was just going in to fill a truck.
1560. *Q.* Did you notice a full truck about there? *A.* No.
1561. *Q.* Have you been down there since? *A.* Yes.
1562. *Q.* How far can you get to that B 5 chute now? *A.* Within about seven sets.
1563. *Q.* You did not see it the night of the accident? *A.* No.
1564. *Q.* You could not see from where you found Lyons;—you could not see anything of the accident? *A.* No.
1565. *Q.* I understand that the sound of the creep was more like a run than a fall? *A.* Yes; what I heard of it.
1566. *Mr. Wise.] Q.* How long ago is it since you ran that chute? *A.* About three months previous to the accident.
1567. *Q.* You say you could run it on your knees? *Q.* Yes, when I ran it.
1568. *Q.* Did you ever hear any of the truckers complain about the chute? *A.* Yes; I have heard them complain amongst themselves.
1569. *Q.* Could you say if it was reported to any of the bosses or officials about the mine? *A.* I could not.
1570. *Q.* When you went into the chute, how did you come out;—did you turn round? *A.* You came out on your hands and knees, and had to turn round and back out.
1571. *Q.* You had to crawl out backwards? *A.* There was a full set three-parts mullock high.
1572. *Q.* If anyone was to say you could walk to that slide in an upright position, would they be stating facts? *A.* No.
1573. *Q.* Can you get to it in a crouching position? *A.* In a crawling position, I could not crouch into it.
1574. *Q.* How long did you work in connection with that chute? *A.* On and off, a year and eight months.
1575. *Q.* Did you see either Milne or Godfrey at the chute? *A.* No, not at the chute. I saw them in the A 2 stope.
1576. *Q.* You never saw them in the gangway;—did you ever see Mr. Dawe or Mr. Hibberd? *A.* No.
1577. *Q.* Do you know A 3 pillar about B 5? *A.* Yes.
1578. *Q.* At the 500-foot level? *A.* Yes.
1579. *Q.* During that year and eight months, were any mining operations carried on there? *A.* Yes.
1580. *Q.* How many sets were taken out? *A.* I do not know.
1581. *Q.* Do you know the miners who were working there? *A.* I know their faces, but I do not know the men.
1582. *Q.* About how long were they working there to your own personal knowledge? *A.* Eight or nine months, and we mullocked up. It was about Queen's Birthday last year, then they had left it. That was about six weeks after they had finished.
1583. *Q.* This stope where B 5 is, did you ever hear timbers creaking and groaning there? *A.* Yes.
1584. *Q.* When last? *A.* When they started to run the winze it used to make it creak.
1585. *Q.* Where were you? *A.* You could hear none of it in the stope, but down on the sill.
1586. *Mr. Hall.] Q.* The only talk you heard about this gangway was among the truckers themselves? *A.* Yes.
1587. *Q.* No complaint was made to the shift bosses;—you never heard any of the men complain? *A.* No.
1588. *Q.* Is it not a rule of the mine, posted up where everyone can see it, that if anything was considered dangerous it was to be reported at once to the bosses? *A.* Yes.
1589. *Q.* Is this not a rule: "If, in the various mining operations underground, the workmen notice any undue pressure on the timbers, or any movement or disturbance in the ground, which might be in any way considered dangerous, they shall immediately convey information of such to their shift boss, who shall at once advise the underground manager or foreman?" *A.* Yes.
1590. *Q.* And is this rule not well known: "As it is impossible, in print, to provide a rule for everything, employees are required, under pain of dismissal, to strictly comply with any rules or instructions which may be made and given verbally by the management from time to time, and are further required, personally and individually, to exercise every care to prevent accidents to themselves or to their fellow workmen?" *A.* Yes.
1591. *Q.* Did you consider there was any undue risk in running that chute? *A.* No.
1592. *Q.* The first warning you got was the rushing of wind when the accident occurred? *A.* Yes.
1593. *Q.* Did it put your candle out? *A.* Yes.
1594. *Q.* You relighted it? *A.* Yes.
1595. *Q.* You said you heard mullock running? *A.* Yes, I heard mullock running.
1596. *Q.* Did that fall after the rush of wind came? *A.* Yes.
1597. *Q.* Was it just like the running of mullock? *A.* No, distinct fall.
1598. *Q.* A continuous running sound? *A.* Yes.
1599. *Q.* When you came to Lyons, was he moving on his hands and knees? *A.* Yes.
1600. *Q.* Moving towards your light? *A.* Yes; away from the danger.
1601. *Q.* He was in the dark? *A.* Yes.
1602. *Q.* At the time, did he seem terrified? *A.* Yes.
1603. *Q.* Very excited? *A.* Yes, very much.
1604. *Q.* Do you know what nationality Lyons is? *A.* No; I do not know.
1605. *Q.* He is not a Britisher? *A.* I should think not. Some say he is an Italian, and others say he is an Assyrian.
1606. *Q.* Did you have any conversation with him when he came up to you? *Q.* He said his mates were up running the chute, and I want to try to go to their assistance. I and the two timber men.
1607. *Q.* Which ones? *A.* Slocum and Prior. We rushed away to the 400-foot level. We did not have any conversation. Cooley also went with us.

Witness—T. J. Prisk, 16 March, 1903.

1608. *Q.* Were there still signs of falling when you got to the 400-foot level? *A.* Yes.
 1609. *Q.* Can you recollect how you went from the 500 to the 400-foot levels? *A.* Through C 3 winze.
 1610. *Q.* Not up any of the shafts? *A.* No.
 1611. *Q.* As far as you know, is the ground well mullocked up in the Central Mine? *A.* No.
 1612. *Q.* As to the pillar Mr. Wise was asking about;—you and your mates helped to mullock it up after the mining was done there? *A.* Yes.
 1613. *Q.* Was it mullocked up securely? *A.* Close, right to the back.
 1614. *Q.* You completed mullocking in May, last year? *A.* Yes.
 1615. *Q.* Everything was left by you secure and safe? *A.* Yes. Mr. Rowe came at the time and saw us finish it.
 1616. *Q.* This mining was done under the supervision of Mr. Rowe, and was completed before he died? *A.* Yes.
 1617. *Q.* Do you know how long the men were mining on this pillar? *A.* No.
 1618. *Q.* Do you consider there was anything dangerous about the construction of B 5 chute? *A.* No; it was an ordinary chute, as far as I knew.
 1619. *Q.* Nothing to distinguish it from other chutes of a similar class? *A.* No.
 1620. *Q.* As far as you know, the timbering was well done? *A.* I did not see any movements there during the eighteen months, on and off.
 1621. *Q.* This gangway to the chute, you say it was mullocked up three-parts of the way;—would that not tend to keep the timbers more secure? *A.* I should say so.
 1622. *Mr. Wainwright.] Q.* When you heard this mullock running, how close were you under the 500 level? *A.* At B 3, when I heard the mullock running.
 1623. *Q.* You said, in answer to Mr. Hall, that you heard it running from the south;—I presume you mean a southerly direction—not the South Mine? *A.* Yes, a southerly direction.
 1624. *Mr. Wise.] Q.* What time were the men working at B 3 pillar? *A.* About nine or ten months ago, to my knowledge. They may have been there previous, but not to my knowledge.
 1625. *Q.* That work was done under the late Mr. Rowe's supervision? *A.* Yes. the last time I saw them there.
 1626. *Q.* When was the last time? *A.* Two shifts I was away from that level altogether. I was not there always.

[Witness left.]

William Henry Manley, called in, sworn, and examined:—

1627. *Commissioner.] Q.* What is your full name? *A.* William Henry Manley.
 1628. *Q.* What are you? *A.* A miner.
 1629. *Q.* Where are you working? *A.* In Block 10.
 1630. *Q.* What mining experience have you had? *A.* Sixteen years.
 1631. *Q.* How many years on the Barrier? *A.* Sixteen years.
 1632. *Q.* The whole of your experience has been on the Barrier mines? *A.* Yes.
 1633. *Q.* Have you worked in the Central Mine? *A.* Yes.
 1634. *Q.* Were you there about September or October last? *A.* Yes.
 1635. *Q.* In both months? *A.* Yes.
 1636. *Q.* What work were you doing? *A.* Breaking ground; between the 400 and 500 levels at A 3 pillar.
 1637. *Q.* How long were you working there? *A.* About four months.
 1638. *Q.* Had work been going on there before you went there? *A.* Yes.
 1639. *Q.* You were stoping away this pillar? *A.* It was all broken ground that we were working away.
 1640. *Q.* Was it ore? *A.* Yes.
 1641. *Q.* You worked there four months? *A.* Yes; in different parts of the stope, but on the same pillar.
 1642. *Q.* How was the ground while you were there? *A.* The backs were not very good.
 1643. *Q.* How far were you from the south boundary at this time? *A.* About 150 or 200 feet from the South boundary.
 1644. *Q.* You were working with square sets? *A.* Yes.
 1645. *Q.* And I suppose it was generally known it was not too safe? *A.* In some parts it was worse than others. The ground was always crying.
 1646. *Q.* And the timbers? *A.* No. The timbers were pretty good—in some parts. In some parts it was bad.
 1647. *Q.* Which was the worst part of the ground? *A.* On the east side, and south side of the stope.
 1648. *Q.* You used every precaution for your own safety? *A.* Yes.
 1649. *Q.* Was there anything wanted that was not provided? *A.* No.
 1650. *Q.* You could get plenty of timber? *A.* Yes; we always had plenty of timber at hand.
 1651. *Q.* Was the mullocking carried right up to your work? *A.* Yes.
 1652. *Q.* You had nothing to complain of at all? *A.* No.
 1653. *Q.* How often did you see the officials of the mine around? *A.* The underground manager always came round once a shift and went through. The shift boss was always there two or three times a shift.
 1654. *Q.* And there was nothing left undone that you think should have been done for the security of the men or the safety of the mine;—nothing you could suggest as a means of making things safer? *A.* There were places that some 10 x 10's could be put in under the caps that were broken.
 1655. *Q.* Was anything left undone which might have been done, and therefore leave the mine unsafe? *A.* Not that I know of. Everything was done that could be for the safety of the mine.
 1656. *Q.* Did you ever hear any falls of ground while you were there? *A.* Yes.
 1657. *Q.* In what direction? *A.* The south end of the stope.
 1658. *Q.* Above or below you? *A.* Below us.
 1659. *Q.* Heavy falls, were they? *A.* Just little falls.
 1660. *Q.* All coming from below? *A.* Yes.
 1661. *Q.* That would not be stuff going down the chute? *A.* We were away from the pass, south of the pass.

1662. *Q.* And you say the stoped ground was properly mullocked up after you left? *A.* Yes.
1663. *Mr. Wise.] Q.* How long ago is it since you ceased working in A 3? *A.* The day before the accident.
1664. *Q.* Was it completed;—what was the reason for your drawing out? *A.* The fall of ground stopped us.
1665. *Q.* The day before the accident? *A.* Yes; that was the reason why we were locked out from there.
1666. *Q.* What portion of this A 3 did you work in—north or south—the last time? *A.* We were working at the west.
1667. *Q.* Do you know anything about B 5 chute? *A.* Yes.
1668. *Q.* Have you ever been up to what is called the slide at the 400-foot level? *A.* No; not close in against the slide.
1669. *Q.* Do you know what that right-of-way is like? *A.* I have been about three sets from the slide. It was very heavy at that time.
1670. *Q.* How long ago was that? *A.* I think about three or four weeks before the accident.
1671. *Q.* Could you go into that chute in an upright position? *A.* No.
1672. *Q.* What sort of position would you have to be in? *A.* You would have to go on your hands and knees.
1673. *Q.* This back was very heavy:—did you consider it dangerous, as a practical miner? *A.* Yes.
1674. *Q.* You considered it absolutely dangerous? *A.* Yes.
1675. *Q.* You do not know how long it was like this? *A.* I could not say.
1676. *Q.* Do you know anything about the A 1 pillar? *A.* No; I never worked there. I know such a pillar as A 1, but I was never there.
1677. *Q.* What about A 2;—was that there when you were working there? *A.* Yes.
1678. *Q.* Do you know how much ground you took out of A 3;—how many sets? *A.* I could not say.
1679. *Q.* Do you know the names of the miners who were working with you? *A.* Yes; John Hocking, Richard Gainer, and I. We three were working on one shift. On the other shift there were Aug. Burke and Joseph Blackmore. I could not say the names of the others; there has been so many.
1680. *Q.* You used to see the Mining Inspectors pretty often;—how many times a month? *A.* While I was working in that stope I saw them about four times. That is four times in four months.
1681. *Mr. Hall.] Q.* Everything was done by the management for the safety of the mine and the security of the men? *A.* Yes.
1682. *Q.* There was plenty of timber there? *A.* Yes.
1683. *Q.* And I suppose if you had cause of complaint you would have made it to the bosses? *A.* No complaint. If we wanted timber we only had to say so, and the boss would order it at once.
1684. *Q.* You had no cause to complain to the shift bosses about the safety of the mine? *A.* No.
1685. *Q.* This ground in A 3 pillar, which you were working at, that was securely mullocked up, and the ground around it safe in every way? *A.* All the stuff we were taking out was broken.
1686. *Q.* So you were really adding to the safety of the mine and to the safety of the men? *A.* Yes.
1687. *Q.* In the mines of Broken Hill broken and heavy ground is not an unusual thing? *A.* No.
1688. *Q.* A good deal of it has to be worked at times? *A.* Yes.
1689. *Q.* I think you said to Mr. Wise that you knew this B 5 chute? *A.* Yes.
1690. *Q.* How did you get to the chute? *A.* We had to crawl in on hands and knees to get to it. I was not close against the chute; only within two or three sets of it.
1691. *Q.* Were you working there? *A.* A set above where we go into the slide.
1692. *Q.* You are quite certain it is B 5 you are referring to? *A.* Yes.
1693. *Q.* You were working just a set above where you go in? *A.* A set to the west from where we went into the gangway.
1694. *Q.* How far above the 500 level was this gangway? *A.* I think it was ten or eleven sets from the level.
1695. *Q.* When you were working one set above this gangway, what section of the mine were you working in;—which stope? *A.* A 2, I think it was. A 3.
1696. *Q.* I am asking this because I think you have mistaken the chute;—A 3 is nearly 100 feet from where you stated you were working? *A.* From the B 5 chute?
1697. *Q.* Yes;—that being so, is it not clear that you have made a mistake about the chute? *A.* We were not working close up against the chute; we were back about twelve or thirteen sets, close up against where we went into the gangway.
1698. *Q.* You were working close up against where you had to go into the gangway? *A.* Yes.
1699. *Q.* Perhaps it would make it clear to you if you were to look at the plan? *A.* Yes. (Looking at plan of the 400 foot level of Central Mine.)
1700. *Q.* Were you working in A 3 pillar, or was it a mistake? *A.* I was working in A 2 pillar. I think I made a mistake in saying A 3.
1701. *Q.* That being so, do you know if any work was done in A 3? *A.* No.
1702. *Q.* The work you referred to in A 3 was really done in A 2? *A.* Yes.
1703. *Q.* Did anyone speak to you about this B 5 chute? *A.* No.
1704. *Q.* Your work did not take you there in the ordinary course? *A.* No one showed it to me.
1705. *Q.* Did you go in as a matter of curiosity, or to inspect the place? *A.* No. To inspect how far. How far we had to run on timbers.
1706. *Q.* When you saw what you considered to be absolutely dangerous ground, did you report it to any person in authority? *A.* Yes, to the shift boss, Cox, and to Mr. Dawe.
1707. *Q.* Was anyone present when you reported it? *A.* Yes, my mates, Gainer and Hocking.
1708. *Q.* How long ago was that? *A.* About three or four weeks before the accident.
1709. *Q.* Do you remember where it was? *A.* On the south from where we were working.
1710. *Q.* Do you remember what was said? *A.* I said, "There is a fall somewhere down below; where, we do not know."
1711. *Q.* So what you spoke of was one of the falls in the South that you heard? *A.* I could not say.
1712. *Q.* Tell us what you said to the shift boss. *A.* I said, "There is a fall down somewhere, but we have not been down."
1713. *Q.* Was that referring to the falls that you told us of in your evidence before—towards the South? *A.* Yes.
1714. *Q.* It was not in reference to the gangway you were talking to him about? *A.* No. We only heard one fall.
1715. *Q.* You made no complaint to anyone? *A.* No.

Witness—W. H. Manley, 16 March, 1903.

1716. Q. You did not mean to infer that you made a complaint to Mr. Cox and Mr. Dawe? A. No. The gangway was not safe, that is what I said, but I did not report it to Mr. Cox or Mr. Dawe.
1717. Q. Which gangway was that? A. Going into B 5 chute.
1718. Q. Do I understand that only on one occasion you heard falling of ground to the south of you? A. Only one fall.
1719. Q. When you say that the fall you heard was to the south of the pass, which one is that? A. B 5.
1720. Q. Were you working to the south of B 5 or to the north? A. To the south.
1721. Q. Then the fall was to the south of you? A. Yes, to the south of us.
1722. Q. Could you judge at all where the fall was;—how far south? A. No, it is impossible to see.
1723. Q. You were south of the B 5 pass—the fall was south of you? A. Yes.
1724. Q. I think you know one of the rules of the mine is that if any of the men discover anything dangerous they have to report it to the bosses? A. Yes.
1725. Q. And so the reason of your not reporting the back of this gangway that you thought unsafe was because you did not consider it sufficiently unsafe to call it within that rule? A. Well, the reason I did not report it was on account of Lyons saying he reported it.
1726. Q. Did Lyons tell you he had reported it? He told me the last time he was there.
1727. Q. How long after you saw it? A. About a week or a fortnight.
1728. Q. What could have been your reason for not reporting it during that fortnight;—did you have other reasons for it? A. No.
1729. *Mr. Wainwright.* Q. To return to this A 2 and A 3 pillar—I think you were working at A 3 or A 2 pillar, and were working on the western side? A. Yes.
1730. Q. Were you on the northern or southern face of the section? A. On the western and on the eastern side.
1731. Q. On the northern or southern face? A. On the eastern face.
1732. Q. You must have been on the north or south? A. On the south side, on the south-western corner of A 2 block.
1733. Q. Then you were somewhere near the Kintore shaft? A. Yes, not far from it; on the eastern side of the Kintore shaft, slightly to the south of it.
1734. Q. You could not say whether it was A 2 or A 3? A. I think it was A 2 where we were working.
1735. Q. How far from the boundary would you estimate it to be;—from the southern boundary, would it be about 150 or 200 feet? A. About 150 or 200 feet.
1736. Q. You heard a fall? A. Yes.
1737. Q. Did you hear it on the eastern or western side? A. Western side.
1738. Q. On top or underneath? A. Underneath, a little south.
1739. Q. How far? A. I could not say.
1740. Q. And could you say which portion of it had fallen? A. Yes, if I had seen it.
1741. Q. Having heard a fall, is it a difficult matter to indicate the direction of the fall? A. Yes. No.
1742. *Mr. Hall.* Q. You are quite satisfied that it was beneath you and to the south of you? A. Yes.
1743. *Commissioner.* Q. You said the roof of this gangway was unsafe? A. Yes.
1744. A. In what way was it unsafe? A. On account of us coming in, working over it. Not exactly over it. We were going along that set and then it branched away to another set to the east and going in this gangway.
1745. Q. And you thought your work might affect the gangway? A. Yes.
1746. *Mr. Wise.* Q. When you started to stope here did you start from the 500-foot level? A. No.
1747. Q. How far up to where you were working;—where did you start? A. We started from ten to eleven sets from the 500 level.
1748. Q. Was there timber below you all the way down? A. Yes.
1749. Q. How far did you work up? A. Two sets high there.
1750. Q. That would bring you near the 400 level? A. No, we had shifted from there.
1751. Q. And you told the Commission that the nearest point you went to B 5 chute was about 50 feet, that was the ground you took out;—when you left there the last time, how many feet? A. About 50 feet, I think, from the chute.
1752. Q. You said you were working in A 2;—do you know anything about A 3 pillar previous to the accident? A. All broken ground there.
1753. Q. Whether any work was ever done in that A 3 by yourself or anyone else, could you tell us? A. I could not say.
1754. Q. You could not say for certain whether A 3 was there at all? A. Yes, it was there.

[Witness left.]

[The Commission adjourned till Tuesday, 17th March, at 10 30 a.m.]

TUESDAY, 17 MARCH, 1903.

[The Royal Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slev, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Albert William Stohr, called in, sworn, and examined:—

1755. *Commissioner.* Q. Do you produce certain plans? A. I produce plans of the main levels of the South Mine, showing in red the ground that was disturbed by the creep of October last. Plans of the levels 400, 500, 600, 700, and 800 feet. They are respectively 425 feet, &c., but we call the levels the round figures. [Plans put in and marked Exhibits Nos. 13, 14, 15, 16, and 17, respectively.]

[Witness left.]

Edwin

Edwin Kirby Beaumont, called in, sworn, and examined:—

1756. *Commissioner.*] *Q.* You produce certain plans? *A.* I produce a plan of cross-sections in the Central Mine. That on the left hand side is cross-section on the south boundary of the Central Mine. The next is the cross-section on the south side of A 4 stope. The next is the south side of A 3; that will be 50 feet north. The next one is through the centre of A 3 pillar. The next is the south side of A 2 stope; and the next is going northerly, south side of A 1. A 1 is the Kintore shaft block showing the shaft. The section on the right hand of the plan is the section through the centre of A 1.

1757. *Q.* The red on this plan shows —? *A.* Those portions affected by the creep of October last.
[Witness left.]

Charles McEwan, called in, sworn, and examined:—

1758. *Commissioner.*] *Q.* What is your name in full? *A.* Charles McEwan.

1759. *Q.* What are you? *A.* A trucker in the Central Mine.

1760. *Q.* In September or October of last year, what levels were you working on principally? *A.* In September last I was working on the 500-foot level, trucking with Joe Lyons.

1761. *Q.* What chute were you trucking from? *A.* B 5.

1762. *Q.* Was that chute ever hung up while you were working it? *A.* Yes.

1763. *Q.* More than once? *A.* Yes. It used to hang a good deal.

1764. *Q.* And who went up to start it? *A.* I have been up with Lyons to run the chute.

1765. *Q.* How did you get up to it? *A.* We had to go back towards the south for about 50 yards, and then go up ten or eleven ladders, and crawl some distance into the chute—into a gangway a set wide.

1766. *Q.* Had you to crawl most of the way? *A.* Three parts of the way, and then lie down and poke the chute.

1767. *Q.* Did you think it was a safe place? *A.* No, I did not think it was safe.

1768. *Q.* What were you afraid of? *A.* I was afraid of where we had to crawl in.

1769. *Q.* Simply because it was such a low place? *A.* There was no room where you had to run the chute.

1770. *Q.* What did you think the danger consisted of? *A.* Baring the chute.

1771. *Q.* You thought the chute might come down, and the stuff out of the chute smother you? *A.* There was not much chance of getting away; we had to crawl and come out backwards one set.

1772. *Q.* Two of you went together? *A.* Yes, one stopped behind the other.

1773. *Q.* Close behind the other;—did you ever object to go in there, or tell anybody it was dangerous? *A.* No.

1774. *Q.* What sort of a roof above you? *A.* Square sets.

1775. *Q.* Did it seem solid? *A.* Yes, in places, and crushed in places.

1776. *Q.* What part of it was crushed? *A.* Where we had to crawl in it seemed crushed overhead.

1777. *Q.* Were the timbers crushed? *A.* No, I did not notice any crushed timbers.

1778. *Q.* Was there timber there? *A.* Yes, on one side, and the wall on the other.

1779. *Q.* Did Lyons say anything to you about this place? I heard him complain to me—only amongst ourselves.

1780. *Q.* Where were you working the night of the creep? *A.* I was on the 700-foot level.

1781. *Q.* Did you hear anything about the time of the creep? *A.* I heard a noise up above.

1782. *Q.* What sort of a noise? *A.* Just a rumbling noise. I was working in the drive.

1783. *Q.* What particular section were you working in? *A.* In a solid mullock drive on the 700 level.

1784. *Q.* North or south of the Kintore shaft? *A.* North.

1785. *Mr. Wise.*] *Q.* What was the date, as near as you can remember, when you worked this B 5 chute? *A.* About three weeks before the creep took place.

1786. *Q.* Do you think it would be possible for a man to walk in in an upright position? *A.* They have to crawl.

1787. *Q.* You could not get in in a crouching posture? *A.* No, on your hands and knees.

1788. *Q.* And a man would have to crawl out backwards? *A.* He would have to shuffle himself out backwards, he then had one set to turn round in.

1789. *Q.* Did you understand that Lyons was to make complaint on behalf of the truckers there? *A.* He said he was to complain to the boss.

1790. *Q.* Did you understand it was to be on behalf of the truckers;—do you know anything about a crack? *A.* Lyons pointed out a crack to me I believe, but I could not say which pillar it was in.

1791. *Q.* Do you know A 3 pillar at the 500 level? *A.* No.

1792. *Q.* What was the back of the gangway like, cracked and broken? *A.* In one place all the timber was broken.

1793. *Q.* Did you consider it was dangerous? *A.* I thought it was dangerous crawling in that place like that.

1794. *Q.* Do you know the Mining Inspectors, Milne and Godfrey? *A.* Yes.

1795. *Q.* Did you ever see one of them at the slide chute? *A.* No.

1796. *Q.* How many times have you been there altogether? *A.* About five or six times running the chute.

1797. *Q.* You know Mr. Crimp, the mullock boss? *A.* Yes.

1798. *Q.* Was he in the habit of coming along and asking the tally? *A.* He used to ask Lyons the tallies.

1799. *Q.* He used to make a regular practice of it? *A.* Yes, I think so. Lyons used to take the tallies up sometimes and give them to him on top.

1800. *Q.* Did you ever hear any truckers refuse to go and run that chute? *A.* No. I heard Lyons refuse, but not to any of the bosses; to us.

1801. *Q.* You never heard him to Crimp? *A.* No.

1802. *Mr. Hall.*] *Q.* You never complained to the bosses at all? *A.* No.

1803. *Q.* You never refused to go there? *A.* No.

1804. *Q.* How long have you been working in the Central Mine? *A.* About twelve months.

1805. *Q.* The only danger you thought there was was in there not being sufficient room there, not on account of any timber broken? *A.* No.

1806. *Q.* How long before the accident was it that Lyons said to the truckers he would not go up the chute? *A.* I heard him complain several times before that. I could not say; I think three weeks before.

1807.

Witness—C. McEwan, 17 March, 1903.

1807. *Q.* Lyons swears that he did not consider that place dangerous until September 25th, that is barely a fortnight before the accident;—do you think you are making a mistake? *A.* No.
1808. *Q.* Have you read Lyons' evidence, as published in the papers? *A.* I have read some of the evidence.
1809. *Q.* You knew it was your duty in the Central Mine to make a complaint to the bosses if you found anything unsafe or dangerous? *A.* Yes.
1810. *Q.* I take it your reason for not reporting it to the bosses was because you did not think it was sufficiently dangerous? *A.* I went by what others said, I never saw the dangers myself. Lyons said he had reported it.
1811. *Q.* That was your reason? *A.* Yes.
1812. *Q.* And your only reason? *A.* I saw the danger in running the chute.
1813. *Q.* Have you had any experience in other mines? *A.* Yes.
1814. *Q.* How long? *A.* About four years.
1815. *Q.* You are still at the Central Mine? *A.* Yes.
1816. *Q.* Is it not the practice at the Central that a stope is filled up immediately after being stripped? *A.* Yes.
1817. *Q.* This mullocking adds to the security of the men and the safety of the mine? *A.* Yes.
1818. *Q.* Do you not think the mullocking of this gangway would add to the security and keep the legs steady? *A.* Yes.
1819. *Q.* How long before the accident was it Lyons showed you this crack? *A.* The first time I went up there; about a month before the accident.
1820. *Q.* Do you know where that crack was? *A.* I could not say. I did not take any particular notice.
1821. *Q.* In your four years' experience, do you think it is anything uncommon to see a crack in the mine? *A.* I have seen several cracks before, but not as large as this one.
1822. *Q.* Not so large? *A.* No.
1823. *Mr. Edwards.] Q.* You have had sufficient experience underground to know if a crack is a dangerous one? *A.* No.
1824. *Q.* This appeared to be a serious crack? *A.* Yes.
1825. *Q.* How far from the chute was it? *A.* It was about 60 feet back.
1826. *Q.* Was it in the same pillar of ore that the chute was fixed to? *A.* No.
1827. *Q.* Was it in B 5? *A.* No.
1828. *Q.* Sixty feet away? *A.* Yes.
1829. *Q.* In which direction? *A.* The crack was running east and west.
1830. *Q.* Was it north or south of the B 5 chute? *A.* South.
1831. *Q.* You have been five years mullocking? *A.* Five years; four years in the Central and at other work.
1832. *Q.* Is it ordinary country there? *A.* Yes.
1833. *Q.* Big lumps and fine stuff? *A.* Mostly fine.
1834. *Q.* Could you say to what extent that mullock would settle;—supposing you fill a stope with it, to what extent would it settle down? *A.* It does settle.
1835. *Q.* It would not shrink much? *A.* No.
1836. *Q.* Very little altogether? *A.* Very little.
1837. *Q.* Have you paid any particular attention to how much mullock will shrink? *A.* No; I have no idea.
1838. *Q.* Do you know Hocking? *A.* Yes.
1839. *Q.* Do you know Richard Gainer? *A.* No.
1840. *Q.* Did you ever see these men working at the 500 level? *A.* No.
1841. *Q.* Between the 500 and the 400? *A.* No, I have never been down through that one.
1842. *Q.* Never? *A.* No.
1843. *Mr. Wise.] Q.* Did you do much trucking from this B 5? *A.* No; I was not there long.
1844. *Q.* How often were you there altogether? *A.* Four or five shifts altogether.
1845. *Q.* Did you ever see anything else besides mullock in that chute? *A.* No.
1846. *Q.* Did you ever see any timber? *A.* No.
1847. *Q.* What was the last date you worked there? *A.* About three weeks before the accident.
1848. *Q.* Did you ever hear any timbers creaking and groaning? *A.* No.

[Witness left.]

John Hocking, called in, sworn, and examined:—

1849. *Commissioner.] Q.* What is your full name? *A.* John Hocking.
1850. *Q.* What are you? *A.* A miner.
1851. *Q.* What mining experience have you had? *A.* About fourteen or fifteen years.
1852. *Q.* All in Broken Hill? *A.* Yes.
1853. *Q.* Have you worked in the Central Mine? *A.* Yes.
1854. *Q.* How long have you worked there? *A.* Two years this last time.
1855. *Q.* Have you worked in the South Mine? *A.* Yes; between two and three years, I think.
1856. *Q.* You were working in the Central Mine last year, about the months of September and October? *A.* Yes.
1857. *Q.* On what levels? *A.* On the 500 level.
1858. *Q.* What particular part of the level were you working in;—do you know the name of the pillar? *A.* A 2.
1859. *Q.* How long before the creep? *A.* I was there till the day before the creep happened.
1860. *Q.* How long had you been working there previous to the creep? *A.* About four or five months down in that quarter.
1861. *Q.* Were you stoping ore? *A.* Stoping from A 2 pillar.
1862. *Q.* What was the nature of the ground? *A.* Broken ground.
1863. *Q.* You were working square sets? *A.* Yes.
1864. *Q.* Was there anything dangerous as far as you saw? *A.* No; not that I am aware of.

1865. *Q.* Did you hear any sound of falling ground in any direction? *A.* Yes.
1866. *Q.* What direction would it be in? *A.* Towards the south stope; only once.
1867. *Q.* Could you say whether above or below you? *A.* I could not say; I think it was below us.
1868. *Q.* Was it a pretty heavy fall? *A.* Yes.
1869. *Q.* Did you hear any movement of the ground, or amongst the timbers? *A.* No.
1870. *Q.* That is all the movement you heard? *A.* Yes.
1871. *Q.* You were away the night of the creep? *A.* Yes; we were on day shift.
1872. *Mr. Wise.] Q.* Have you any idea how long you were working on the A 2 stope? *A.* Well, I told you altogether about five or six months.
1873. *Q.* Where was it you first started to work? *A.* I started on the third floor from the 400 level below the 400-foot level.
1874. *Q.* How many sets up did you take that stope from the third floor? *A.* We went right up through the winze to the third floor.
1875. *Q.* How many sets of ground did you take out of that place? *A.* I do not know.
1876. *Mr. Hall.] Q.* Had you any reason to complain of working there to the shift bosses? *A.* No.
1877. *Q.* Were you always supplied with plenty of timber and everything at hand? *A.* Yes; any timber at all we wanted.
1878. *Q.* Was every care taken by the shift bosses and underground-manager to look after your safety? *A.* Yes.
1879. *Q.* Was the ground well mullocked up after you had taken out the stopes? *A.* Yes.
1880. *Q.* In your opinion, is that the safest and most prudent way of mining to fill up with mullock and to timber it? *A.* Yes.
1881. *Q.* Was the mullocking kept close up? *A.* Yes.
1882. *Q.* Can you tell us how long before the accident you heard this fall occur? *A.* I could not tell you.
1883. *Q.* When you were in the South Mine, where were you mining? *A.* At the 600 level.
1884. *Q.* Near the south boundary at all? *A.* I could not tell you.
1885. *Q.* At the north end of the South Mine or the south end? *A.* I could not tell you.
1886. *Q.* Do you know where in the South Mine you started at work first on the 600 level? *A.* We started close to No. 8 shaft—that is, when I started first.
1887. *Q.* You used to go down the main shaft, and did you go towards the Central or South Mine? *A.* Towards the south blocks.
1888. *Q.* Were you working in the northern part of the South Mine? *A.* I could not say in what part it was; only close to the 8 shaft, and I worked in the 400 level.
1889. *Q.* How long ago is it that you worked there? *A.* About five or six years; it might have been more than that.
1890. *Q.* When did you leave? *A.* I could not tell you; I was bad, and had to go to town.
1891. *Q.* What work were you doing in the South Mine? *A.* Mining.
1892. *Q.* So far as you saw in the Central Mine, every care and precaution was taken for the safety of the mine? *A.* Yes.
1893. *Q.* And you had nothing to complain of? *A.* No.
1894. *Mr. Edwards.] Q.* Where did you start in the A 2 stope;—was it a pillar of ore? *A.* No; it was a stope; we were working it.
1895. *Q.* Would you call the ground all solid? *A.* All broken ground.
1896. *Q.* You know the pillars that were left standing? *A.* No; none were left where we were, not when we were there.
1897. *Q.* What had become of the pillars? *A.* It was a stope.
1898. *Q.* Was it not a stope that was being worked into a pillar? *A.* Not that I know of.
1899. *Q.* Were you not breaking down ore in the pillar? *A.* In A 3 stope.
1900. *Q.* What is A 3 stope? *A.* That is another stope.
1901. *Q.* Were there any pillars of ore left standing that you saw? *A.* Not where I was working.
1902. *Q.* How far did you work in;—you know A 1? *A.* Yes.
1903. *Q.* A 2? *A.* That is a stope.
1904. *Q.* A 3;—is that a stope? *A.* I have not been into it.
1905. *Q.* A 2 is stoped right away up? *A.* Yes.
1906. *Q.* Manley was a mate of yours? *A.* Yes.
1907. *Q.* If he called it a pillar, was he right or wrong? *A.* I suppose so.
1908. *Q.* Is he right? *A.* It is A 2 stope.
1909. *Q.* That is what you know it as? *A.* Yes.
1910. *Q.* It was stoped out? *A.* Yes.
1911. *Q.* Was it all broken ground? *A.* No; it was not all broken ground.
1912. *Q.* Was it heavy ground? *A.* Not very heavy.
1913. *Q.* Good working ground? *A.* Yes.
1914. *Q.* Easy ground to stope? *A.* It was right enough.
1915. *Q.* From your point of view? *A.* Yes.
1916. *Q.* Would it hold up anything? *A.* It would hold up itself all right.
1917. *Q.* That is all? *A.* That is as far as I can say.
1918. *Q.* You do not know how many sets you took out? *A.* No.
1919. *Q.* You were working five or six months stoping? *A.* Yes.
1920. *Q.* Were any men working in A 3 on the same level—a little below you or above? *A.* I think they were.
1921. *Q.* Do you know who they were? *A.* No; I do not know their names.
1922. *Q.* How long had they been working there? *A.* I could not say.
1923. *Q.* You must be able to say how long they were working there;—before the creep, were they working there a day? *A.* They were working there all the while; I could not say how long; they might have been working a month or two; I do not know who they were.
1924. *Q.* You used to ride up and down in the cage with them? *A.* I might have.
1925. *Q.* Why did you leave that stope the day before the accident? *A.* Because it came it; that is why we did not work there again.

Witness—J. Hocking, 17 March, 1903.

1926. *Q.* Were you working right up to the creep? *A.* Yes.
 1927. *Mr. Wise.] Q.* How many were working on each shift with you? *A.* Three men.
 1928. *Q.* Do you know the names of the men? *A.* Yes.
 1929. *Q.* Who were they? *A.* Manley and Gainer.
 1930. *Q.* How many shifts? *A.* Two shifts.
 1931. *Q.* Do you know the names of the men on the other shift? *A.* August Burg.
 1932. *Q.* Do you know the names of the other two men? *A.* I know one was Joe Blackwell. I do not know the names of the others.

[Witness left.]

August Burg, called in, sworn, and examined:—

1933. *Commissioner.] Q.* What is your full name? *A.* August Burg.
 1934. *Q.* What is your occupation? *A.* A miner.
 1935. *Q.* Where are you working? *A.* In the Central Mine.
 1936. *Q.* What has been your previous experience in mining? *A.* I have been at it ever since I was 13 years old.
 1937. *Q.* How long in Broken Hill mines? *A.* I had been here nine months previous to that. I have been here ever since; the whole of my experience has been in Broken Hill.
 1938. *Q.* In the month of September last were you in the Central Mine? *A.* I could not say the month.
 1939. *Q.* You remember the creep? *A.* Yes; I was there previous to that.
 1940. *Q.* What level were you working in? *A.* At the back of the 500 level.
 1941. *Q.* Who were your mates? *A.* Joe Blackwell and Reuben Cox; they were my mates.
 1942. *Q.* What shift were you on? *A.* I was on the afternoon shift then.
 1943. *Q.* How long were you in this particular place prior to the creep;—you were working below the 400 foot level? *A.* Just about four months.
 1944. *Q.* Do you know the name of the part of the mine you were working in? *A.* A 2 stope.
 1945. *Q.* You were stoping ore? *A.* Yes.
 1946. *Q.* Was it solid ground? *A.* No; we were working on ground that had shifted away from the back.
 1947. *Q.* Removing loose ground? *A.* Yes; and timbering up.
 1948. *Q.* Did you hear any movement amongst the timbers or in the ground while working there? *A.* No, only once.
 1949. *Q.* What was it? *A.* Talking a bit; about a month previous to the creep.
 1950. *Q.* The timbers were talking? *A.* A bit of a noise; cracking.
 1951. *Q.* In what direction was it? *A.* In the stope we were working in.
 1952. *Q.* But were there any sounds of falling in any direction? *A.* No; no falls.
 1953. *Q.* How did the ground appear to you to be? *A.* The ground seemed safe enough. We noticed some weight on the timbers.
 1954. *Q.* This was a usual thing? *A.* Yes.
 1955. *Q.* Who were mullocking for you? *A.* I could not tell you that.
 1956. *Q.* The mullockers were following you? *A.* They were always following up; when a few sets were taken out they followed up.
 1957. *Q.* You were well supplied with timber? *A.* Yes.
 1958. *Q.* You had no complaint to make about the ground or anything of the sort? *A.* No.
 1959. *Mr. Wise.] Q.* Do you know this B 5 chute where the men were supposed to be at the time of the creep? *A.* Yes; I do not know it by name.
 1960. *Q.* Have you ever been there in the slide? *A.* No.
 1961. *Q.* You were working in A 2 stope? *A.* Yes.
 1962. *Q.* Do you know a pillar of ground called A 3 in the Central Mine? *A.* Yes; I know A 3. I know the pillar.
 1963. *Q.* You were working at A 2? *A.* It is near the drive that is coming from Kintore shaft to the old shaft.
 1964. *Q.* Were there any miners working towards the South? *A.* Yes.
 1965. *Q.* What level were they at? *A.* At the 500 level right on the sills.
 1966. *Q.* Can you tell me their names? *A.* Yes; they were Jim Hollow, George Williams, Joseph McCubbin, and John Nankivell; they were on our shift.
 1967. *Mr. Hall.] Q.* You were at the mine the night of the accident? *A.* Yes.
 1968. *Q.* Did you hear the ground creaking? *A.* No; it was quiet that night.
 1969. *Q.* Did the shift bosses visit you frequently and take every care in supervising the work? *A.* Yes.
 1970. *Q.* The underground manager, did he take every possible care as far as you saw? *A.* Yes.
 1971. *Q.* Did you have any complaint to make at any time to the bosses? *A.* No, none at all.
 1972. *Q.* You know the style of square set and mullocking in the Central Mine;—do you approve of that plan, or do you think there are better plans for the security of the mine and the safety of the men? *A.* I do not know of anything better.
 1973. *Q.* In your opinion, as a practical miner, is that the best way to mullock up? *A.* Yes.
 1974. *Q.* I understand you said you did not hear any falls of ground while working there? *A.* No, not during my time there.
 1975. *Q.* You have been working in the mine since the accident? *A.* Yes.
 1976. *Q.* Could you form any opinion as to where the ground went? *A.* I have not been down below the 500; I have not seen anything.
 1977. *Q.* You know this B 5 stope? *A.* No; I do not know the B 5 stope.
 1978. *Q.* This one the chute is alongside? *A.* I know the winze, but have never been into it.
 1979. *Q.* Could you say if it was working twelve months before the accident? *A.* I could not say.
 1980. *Q.* Were you in the Central Mine for nine months? *A.* Yes; nine months from the present time.
 1981. *Q.* How many years' mining experience have you had? *A.* Over seven years straight off.
 1982. *Mr. Edwards.] Q.* You were only working three or four months before the accident? *A.* Yes; this time.
 1983. *Q.* You know nothing about the lower level before the accident? *A.* No; only working on the 600 level.

1984. *Q.* The mullock you were using was country rock? *A.* Yes; broken on the side of the hill.
1985. *Q.* Can you say to what extent mullock will shrink? *A.* I could not form any idea.
1986. *Q.* Would it shrink as much as a third? *A.* I do not know.
1987. *Q.* You broke the ore out and put the timber in and left the rest to the others to do? *A.* Yes.
1988. *Q.* Did you ever hear of any cracks in that ground on the level you were working in? *A.* No.
1989. *Q.* You never saw any? *A.* No.
1990. *Q.* Not at the 400 level? *A.* There was a crack on the 400 level.
1991. *Q.* What part of the 400 level? *A.* It would be on the level.
1992. *Q.* Was it in the ore pillar? *A.* No; back of the 5 stope going south, at the level near the mullock shaft.
1993. *Q.* When did you first notice that crack? *A.* The first time I went on the 400 level.
1994. *Q.* About three or four months before the accident? *A.* We used to go to the 400 level, and we used to go to the 500 to the W.C. About two months before the accident we noticed it.
1995. *Q.* What extent was the crack? *A.* Just merely a crack. You could define it as a crack, that is all.
1996. *Q.* Did it extend any distance? *A.* It runs towards the South.
1997. *Q.* Did it indicate anything to you as a miner? *A.* It indicated that the ground was cracked, and something must have given way to leave that crack there.
1998. *Q.* On what side of the stope was this—towards the south boundary? *A.* Towards the south boundary, and it was going towards the south boundary. There is a drive that runs there, and it is alongside the drive.
1999. *Q.* Which side? *A.* On the right going in.
2000. *Q.* In towards the underlay? *A.* Yes.
2001. *Q.* Did that crack open at all? *A.* Not when I saw it.
2002. *Q.* You did not watch it carefully? *A.* When I went along I had a look at it; but I did not notice any difference from the first time I noticed it; it might have opened, but I did not take much notice.
2003. *Q.* Do you know if any men were working below you in the same stope? *A.* No, none in the same stope.
2004. *Q.* You were working two shifts? *A.* Yes.
2005. *Q.* And in A 3 you said a party of men were working? *A.* The only men working in our end was Williams and party.
2006. *Q.* Hollow, Williams, McGubbin, and Nankivell, where were they? *A.* No; they were further south. A 4 I should take it to be more than anything.
2007. *Q.* You have never been in A 4? *A.* I have been as far as they were trucking.
2008. *Q.* Do you know A 3 pillar? *A.* I do not know particularly; there was ore on the shaft side, but I do not know whether it was a pillar or not.
2009. *Q.* It does not look like a pillar? *A.* I do not know.
2010. *Q.* Do you know how much work they did there? *A.* I could not say; I had not been there long.
2011. *Q.* Were you working the same shifts as your party? *A.* Yes, the same shifts.
2012. *Q.* These were the only men you know of working there? *A.* Yes, on the 500 level.
2013. *Q.* During the three months you were there? *A.* Yes.
2014. *Mr. Wise.] Q.* What was the last time you saw the crack previous to the accident? *A.* I could not say; perhaps a day or so.
2015. *Q.* It might have been a month or six weeks? *A.* It could not have been that. I was only four months in the stope.
2016. *Mr. Hall.] Q.* From first to last, as far as you know, it was not spreading or opening? *A.* No; I never noticed it.
2017. *Q.* Did you consider it dangerous enough to report to the shift-bosses? *A.* No.
2018. *Q.* You know the main crosscut from Kintore to the main shaft;—was the crack on the South Mine side of that crosscut or the north side of the crosscut? *A.* Going towards the South boundary—if that shaft is south of the crosscut.
2019. *Q.* And about how many feet from the main crosscut to the crack where it starts? *A.* It must be south. You turn round from there and come to where the party of men broke through.
2020. *Q.* You know this main crosscut from the main shaft to the Kintore shaft? *A.* Yes.
2021. *Q.* On what side of that was the crack, on the South Mine side of that or on the other side of it? *A.* On the right-hand side going from the boundary to the old shaft. That is South.
2022. *Q.* You have no doubt about that? *A.* No.
2023. *Q.* How many feet from the main crosscut would it be where you saw the crack? *A.* About three parts of the way in from the crosscut to the mullock chute.
2024. *Q.* As there is some doubt as to whether you are referring to the same chute as I am—about how far is the chute from the main crosscut, approximately? *A.* About 100 feet or more.
2025. *Q.* Do you know B 5;—that chute you are talking about is between the main crosscut and the South Mine? *A.* Yes.
2026. *Q.* And three parts of the way in through that? *A.* Yes.
2027. *Q.* Do you know what block that mullock shaft was in? *A.* I do not know. It was further south than A 2 where we were.
2028. *Mr. Edwards.] Q.* How far would this crack you refer to be from the chute where the men were killed;—how far would the crack in the ground be from the chute? *A.* It started three parts of the way in the chute going towards the South. I could not tell you the distance.
2029. *Q.* Was it 50 feet away from the crosscut? *A.* In the same block of ground, to my idea.
2030. *Q.* This crack was in the same pillar of ground that this chute was in? *A.* Yes.
2031. *Q.* Would that be 50 feet away from the chute? *A.* I would not like to say.
2032. *Q.* This crack was in the same pillar of ground? *A.* The chute was sunk in the ground where the slide was.
2033. *Q.* You say within 50 feet? *A.* I would not say for certain.

[Witness left.]

Josephus Blackmore, called in, sworn, and examined :—

2034. *Commissioner.*] Q. What is your full name? A. Josephus Blackmore.
 2035. Q. What are you? A. A miner.
 2036. Q. Living in Broken Hill? A. Yes.
 2037. Q. What mining experience have you had? A. About six years.
 2038. Q. How many years here? A. Two years and nine months here.
 2039. Q. Where previously? A. In Barraarat.
 2040. Q. Have you worked in the Central Mine? A. Yes.
 2041. Q. Where else? A. In the big mine.
 2042. Q. In the month of September last were you working in the Central Mine? A. Yes.
 2043. Q. And one of your mates was August Burg? A. Yes.
 2044. Q. What part of the mine were you working in in September? A. The south end.
 2045. Q. Do you know the name of the stope or pillar? A. A 3.
 2046. Q. You were stoping ore? A. Yes.
 2047. Q. Did you see any movement or hear anything while you were working there? A. No, no sign whatever.
 2048. Q. No sound of any fall? A. No.
 2049. Q. How did the ground appear to you to be? A. Crushed ground; broken ground.
 2050. Q. Not dangerous in any way? A. It was a little heavy resting on the timbers.
 2051. Q. You heard no sound of any movement? A. No.
 2052. Q. Were there any cracks in the ground at any place? A. Well, I did see a few little cracks around the sides of it.
 2053. Q. Whereabouts? A. In the north end. You could almost crawl in where the broken ground was.
 2054. Q. Do you know B 5 chute, where the two young fellows were working at the time of the accident? A. I do not know where that chute is.
 2055. Q. Do you know where they were working at the time of the accident? A. I know pretty well where it is.
 2056. Q. As far as your experience teaches you, was anything done in the mine that you disapproved of? A. No.
 2057. Q. Had you everything you required there? A. Yes, pretty well, I think.
 2058. Q. Did you ever ask for anything you could not get? A. No.
 2059. Q. You had timber and everything? A. Yes.
 2060. *Mr. Hall.*] Q. You were working with Burg and Cox? A. Yes.
 2061. Q. Do you know whether you were working in A 3 or A 2? A. A 3, if I remember right.
 2062. Q. How long have you worked in the Central Mine? A. About two years now, I suppose.
 2063. Q. What level were you working on at the time of the accident? A. Between the 400 and 500 levels.
 2064. Q. What shift were you on? A. Afternoon shift.
 2065. Q. Were you back at all in the mine the night of the accident? A. The accident happened two or three hours after we left.
 2066. Q. Did you hear any winding noise or cracks that night? A. No; not a sound.
 2067. Q. When you left, did everything appear as safe as possible? A. Yes.
 2068. Q. You stated just now you had everything you required and plenty of timber; were the stopes kept well mullocked up? A. Yes, pretty well mullocked.
 2069. Q. As far as your experience goes, do you approve of the system of mullocking as carried on there? A. Yes.
 2070. Q. You think it the best possible system for the safety of the men and the security of the mine? A. Yes.
 2071. Q. Had you any complaint to make to any of the bosses? A. No.
 2072. Q. As far as you know, there was no warning to show a fall would take place when you left your work at 12 o'clock that night? A. No.
 2073. Q. Had you any complaint to make as to the supervision of the shift-bosses or the management? A. No.
 2074. Q. As far as you could judge, were they careful and prudent men? A. Yes.
 2075. Q. Did you notice on that night when you came off shift an extraordinary number of rats about? A. No.
 2076. Q. How long had you been working in this particular place before the accident? A. Just about three months.
 2077. *Mr. Edwards.*] Q. Where were these cracks which you said you could crawl into? A. It was alongside where we were working.
 2078. Q. In the same ground that this mullock chute was in? A. Just about it.
 2079. Q. How far were these cracks from the mullock chute where these men were killed? A. I could not tell you that.
 2080. Q. Was it 50 feet? A. No.
 2081. Q. Where the cracks in the same ground as the mullock chute was in? A. Yes, I believe it was.
 2082. Q. How many cracks were there? A. I only saw one.
 2083. Q. When did you first notice it? A. When we first went into the ground; it was always the same. I never saw any difference in it all the time I was there.
 2084. Q. Was it friable ore? A. Some of it.
 2085. Q. Was it ground that would wind? A. I could not say.
 2086. Q. How far did this crack extend? A. I could not go in very far.
 2087. Q. What length would it be? A. Just like one big crack; I could not tell you the length of it.
 2088. Q. Was it as long as this room? A. It might have been. I would not swear to it.
 2089. Q. About 20 or 30 feet long? A. I suppose it would be.
 2090. Q. It was big enough for a man to crawl in? A. Yes.
 2091. Q. Had anything been done to it? A. Filled up with bits of timber and dunnage.
 2092. Q. How high above the level did this crack appear? A. Just about three ladder-ways from below the 400 level where we were working.

2093. *Q.* Just three ladder-ways below the 400? *A.* Yes.
 2094. *Mr. Hall.] Q.* You say you think you know the position of this B 5 winze? *A.* That is the mullock chute.
 2095. *Q.* How far from the main crosscut between the two shafts—Kintore and the main shaft—is it? *A.* Just on the corner.
 2096. *Q.* Is it to the south or north of the main crosscut? *A.* On the north side of it.
 2097. *Q.* Was there only one crack or more? *A.* Only one.
 2098. *Q.* You have had some years' experience, did you consider it dangerous? *A.* No.
 2099. *Q.* Did you report it to any of the bosses? *A.* When the shift-boss came round we showed it to him.
 2100. *Q.* Was that before it was filled up? *A.* Yes.
 2101. *Q.* You say it never altered the whole time? *A.* No.
 2102. *Q.* It never opened or extended in any way? *A.* No.
 2103. *Q.* How long before the accident was it filled up? *A.* I could not say exactly how long.
 2104. *Q.* A month or two, approximately? *A.* From six to eight weeks.
 2105. *Q.* How far was this crack from where you were working? *A.* Almost alongside of us.
 2106. *Q.* How far were you from this mullock chute where you were working? *A.* I could not tell exactly.
 2107. *Q.* How far was the crack from the winze? *A.* I could not tell you.
 2108. *Q.* Was it 20 feet or 200 feet? *A.* If I had been into the chute I might be able to tell you, but I have never been into it.
 2109. *Q.* You were quite satisfied with the safety of the crack after it was filled up? *A.* Yes.

[Witness left.]

Richard Gainer, called in, sworn, and examined :—

2110. *Commissioner.] Q.* What is your full name? *A.* Richard Gainer.
 2111. *Q.* What are you? *A.* A miner.
 2112. *Q.* What length of experience have you had? *A.* Near on thirty years.
 2113. *Q.* How long have you been in Broken Hill? *A.* I have been here nineteen years.
 2114. *Q.* And before that? *A.* At the tin-fields, Tarowingie, and shaft-sinking all over the country.
 2115. *Q.* You have been working in the Central Mine? *A.* Yes, and am still at work there.
 2116. *Q.* How long have you been employed there? *A.* About ten months altogether.
 2117. *Q.* About September last, where were you working? *A.* Up in the stope called A 2.
 2118. *Q.* Who were your mates? *A.* William Manfey and John Hocking.
 2119. *Q.* You were stoping ore? *A.* Yes.
 2120. *Q.* Was it solid ground? *A.* No, broken ground.
 2121. *Q.* Did you hear any falls or the timber speaking while you were there? *A.* Yes, we heard a fall towards the south boundary as far as we could understand.
 2122. *Q.* How far from the boundary were you in this stope? *A.* We might have been 150 or 200 feet.
 2123. *Q.* Could you say where the fall was, above or below? *A.* It must have been underneath, according to the sound.
 2124. *Q.* You heard a movement in the timbers, where would that be? *A.* Where we were working.
 2125. *Q.* You were working in loose ground? *A.* Broken ground.
 2126. *Q.* To what did you attribute the creaking of the timber? *A.* The sinking of the mullock where we were working.
 2127. *Q.* That was nothing unusual? *A.* Nothing unusual.
 2128. *Q.* You would expect that? *A.* You would anywhere.
 2129. *Q.* There never was anything to cause you to think the ground was dangerous? *A.* No, we never saw anything. We used to keep the ground secure for the safety of ourselves.
 2130. *Q.* You had everything you wanted in the way of timber? *A.* As much timber as we wanted.
 2131. *Q.* How often did you see the shift-bosses? *A.* Sometimes twice a day, and sometimes more.
 2132. *Q.* I suppose they examined your work? *A.* Yes.
 2133. *Q.* Have you noticed anything in the ground to cause you uneasiness in your work? *A.* Nothing more than creaking and groaning. No matter what mines you are in there is always the same thing underground.
 2134. *Q.* You have worked several places in the Central Mine? *A.* No, only in that stope and where I have worked since the creep.
 2135. *Q.* Have you found the mine well mullocked up? *A.* Very well, and satisfactory in every way.
 2136. *Q.* Have you worked in the South Mine? *A.* No. I have never worked there.
 2137. *Q.* Do you remember the winze being put down by King? *A.* No, I know nothing about the winze.
 2138. *Q.* Do you know where King was working? *A.* No, I only know about the stope where I was working.
 2139. *Mr. Wise.] Q.* How can you say that the place was well mullocked up? *A.* The place was well mullocked up. I was talking about as far as I have seen. Everywhere I have been there it is well mullocked up.
 2140. *Q.* Have you been other places in the Central Mine—in any other stopes? *A.* No. I have worked in the drive four years ago; that is all I have worked in.
 2141. *Q.* If a witness came here and said the timbers were not groaning, would he be stating facts? *A.* He would not.
 2142. *Q.* Do you know B 5 chute? *A.* I do not know what they call B 5 chute.
 2143. *Q.* Where were you working just previous to the creep? *A.* We were working five sets under from the 400.
 2144. *Q.* You are certain this stope was called A 2? *A.* Yes; that is what I am told it was.
 2145. *Q.* Do you know of any A 3 in the mine? *A.* No; there may be fifty for all I know.
 2146. *Q.* In this place where you say the timbers were talking, how long was that going on? *A.* Going on till we eased her off and took the heaviest of the ground off.
 2147. *Q.* About ten months? *A.* No; I have only been in the mine ten months. About three months.
 2148. *Q.* How long was it going on? *A.* Often times. I did not take much notice. I could not tell you how many times.

Witness—R. Gainer, 17 March, 1903.

2149. *Mr. Hall.*] *Q.* I understand when you cased this ground and took the weight off the top the groaning ceased? *A.* Yes.
2150. *Q.* The very work you were engaged in was to ease this ground? *A.* Yes.
2151. *Q.* Did you complain to any of the shift-bosses that your ground was dangerous in any way? *A.* No.
2152. *Q.* And you are simply talking about what you know from others and what your experience tells you? *A.* Nothing else.
2153. *Q.* Were the shift-bosses looking after things in a prudent way? *A.* Yes, they were there two or three times a shift.
2154. *Q.* Was that sufficient for the safety of the men? *A.* The men should not be there if they did not understand their work, for their own sake.
2155. *Q.* You thought the supervision was in every way sufficient? *A.* Yes.
2156. *Q.* You were satisfied with the way the stopes were stripped and timbered and mullocked up? *A.* Yes.
2157. *Q.* You consider that the safest and best method of securing the mine? *A.* Well, I reckon that the best way.
2158. *Q.* Can you, as an experienced miner, suggest anything that might have been done by the management that might have prevented that creep? *A.* No; I could see nothing at all.
2159. *Q.* In answer to the Commissioner, you stated you heard on one occasion a fall towards the south boundary. It sounded underneath on the south side? *A.* Yes.
2160. *Q.* Do you recollect how long before the creep occurred? *A.* Not above two or three days.
2161. *Q.* Shortly before the creep? *A.* Yes.
2162. *Q.* And that sound came from towards the South Mine? *A.* I could not tell you where, we only go by the sound.
2163. *Q.* Do you know Blackmore? *A.* He was on the opposite shift. I know nothing about him.
2164. *Q.* He was working there? *A.* Yes.
2165. *Q.* And you are perfectly satisfied the place you were working at with Blackmore was A 2? *A.* That is what they called it, as far as I know.
2166. *Q.* Do you know a crack that was filled up slightly to the north of where you were working? *A.* No.
2167. *Q.* You say the ground was broken where you were working? *A.* Yes.
2168. *Q.* Was it from the back;—could that be mistaken for the crack? *A.* The ground was round like a circle, and we were to take this ground off and catch up the back.
2169. *Q.* Did you see anything that might be called a crack between where you were working and the main crosscut between the Kintore shaft and the main shaft were a man might crawl in? *A.* Only where I was speaking of. Where it had gone from the back and where we were taking it off.
2170. *Q.* That was where you were working? *A.* Yes.
2171. *Mr. Edwards.*] *Q.* How high up from where you started? *A.* Two sets underneath the 400. That is the ground we took off.
2172. *Q.* Is that the place where the crack is? *A.* That is where it is gone down.
2173. *Q.* At the time you were working there did you see a crack that was filled up with old dunnage there? *A.* No; I never saw any old dunnage.
2174. *Q.* Blackmore told us he saw a crack which he could almost crawl into? *A.* I have not seen that.
2175. *Q.* About 20 feet long, going straight in? *A.* I do not know anything about it.
2176. *Q.* How long have you been working there? *A.* Four months.
2177. *Q.* Was Blackmore? *A.* I do not know. We never know who may be on the next shift, there are so many changes.
2178. *Q.* What stope were you at? *A.* A 2.
2179. *Q.* Who told you? *A.* I am informed it was A 2. The timekeepers told me it was A 2.
2180. *Q.* Have you been told to-day? *A.* No; I have not been told to-day.
2181. *Q.* I take it you have not been talking to anyone to-day about A 2? *A.* Not that I am aware of.
2182. *Q.* Will you swear that there is not a crack in this ground where you were working that a man could crawl into, and which had been filled up with dunnage? *A.* I never saw it.
2183. *Q.* Did you hear any of the men talking about it? *A.* I did not.

[Witness left.]

Edwin Martin, called in, sworn, and examined:—

2184. *Commissioner.*] *Q.* What is your full name? *A.* Edwin Martin.
2185. *Q.* What are you? *A.* Timber boss at the Central Mine at the present time.
2186. *Q.* What mining experience have you had? *A.* About eighteen years.
2187. *Q.* How long in Broken Hill? *A.* About fourteen years.
2188. *Q.* Previously, where were you working? *A.* At the Wallaroo mines in South Australia.
2189. *Q.* Do you supervise the whole of the timbering throughout the mine? *A.* Yes.
2190. *Q.* You know the place they call B 5 chute? *A.* Yes.
2191. *Q.* You know it used to be hung up? *A.* Yes.
2192. *Q.* How was the mullock set running again? *A.* They had to go in the South side of A 2 or the north side of A 3 stope on the 500 level, and go up ten floors and the eastern side of A 2 block, and go to the mullock chute about twenty-six sets from the south gangway to the north gangway of A 3. Go up about ten floors and twenty-six sets in from there to the B 5 winze, and eight sets they had to crawl on their hands and knees.
2193. *Q.* When they got to the winze how did they manage it? *A.* One stayed back and the other poked the chute and set it going.
2194. *Q.* Could he do that on his hands and knees? *A.* Yes, he could. The last time I was there I poked the chute myself, and you could go on your knees at that time.
2195. *Q.* How long ago? *A.* I could not say. The sets were about half full.
2196. *Q.* How much room overhead? *A.* The legs were about 6 feet 2 inches high, that would be about 3 feet.
2197. *Q.* Was the work safe, in your opinion? *A.* Yes.

2198. Q. How was the gangway, in good order? A. The best part of the gangway was in where they had to crawl.
2199. Q. Where was the worst part? A. There was a side to the stope, it was the worst side, and they had to go in the eastern side to get into it.
2200. Q. Was that not safe? A. I do not mean to say it was not safe, but as far as the place they had to crawl in it was safe.
2201. Q. Was the timber strained or broken in any places? A. Yes; a bit or two. They had a "tom" or "liner" underneath it.
2202. Q. Who went up with you when you started that chute going this time? A. I could not say; it is a long time ago since I was there. Dawe and I were there two days before the accident; we went into the chute together. The chute was filled from the 500 level up to where the lip of the chute was.
2203. Q. Was there any danger as far as you could see? A. No; there was not.
2204. Q. Were you ever up there with Joseph Lyons? A. I do not remember.
2205. Q. Did you ever hear Lyons tell Crimp, the mullock boss, that it was dangerous? A. No; I never heard him say anything at all to him.
2206. Q. Did you ever say it was dangerous, and he was to take another man with him? A. No; no man is allowed in the stopes where miners are not working by himself.
2207. Q. What is the name of the pillar in front of the chute? A. It would be B 5.
2208. Q. We have it here A 4; where would that be? A. Back towards the South Mine.
2209. Q. Would that not be where the men went into the gangway? A. To get into A 4 you have to go back into the next gangway from that. You could not get up that way.
2210. Q. Did anyone complain to you about a crack in this pillar before the accident? A. Yes; in the back of A 4.
2211. Q. Did you look at it? A. Yes.
2212. Q. Do you remember who told you? A. No; I could not remember that.
2213. Q. When you got there what did you find? A. I found a crack beside the mullock chute or A 4 winze leading from the 400 to the 500 level.
2214. Q. And was it a large crack? A. Well, I suppose you could put a 10 x 2 into it.
2215. Q. Have you any idea what time you saw this? A. Since the creep in June.
2216. Q. How long prior to the last creep? A. Long before, perhaps three or four months.
2217. Q. Was that the last time you saw it? A. I never went up there since.
2218. Q. Did you report it to anyone? A. No; we all went round after this creep; the first place we discovered cracks was at the 400 level.
2219. Q. You attribute this crack to what occurred in the June creep? A. Yes.
2220. Q. Do you remember anyone reporting to you that some baulk was giving way? A. Yes.
2221. Q. Where was that? A. In A 4.
2222. Q. Did you visit it? A. Yes.
2223. Q. What did you find? A. The baulk was built in front of the winze or mullock chute B 5 in the 500 level the pressure was coming against the baulk and pressing it north.
2224. Q. What was done in connection with it? A. This is a good while before the creep.
2225. Q. Did Lyons report it to you? A. I think it was Lyons and Crimp.
2226. Q. Did you and Crimp go up and inspect it? A. Yes.
2227. Q. Did you report it to anyone else? A. Dawe saw it.
2228. Q. Do you know if anything was done to it afterwards? A. Yes; the ground was "popped" down and another baulk built up in its place.
2229. Q. Do you remember any conversation with Mr. Rowe relative to the pillar between A 4 and A 5? A. No; no pillar there.
2230. Q. About any pillar? A. No; I do not remember anything about any pillar between A 3 and A 4, or any pillar.
2231. Q. Do you remember Mr. Rowe saying to you that that pillar must not be taken out, otherwise the two walls would go together? A. No.
2232. Q. Do you remember Mr. Rowe saying any pillars were not to be taken out? A. No; I never heard him say so.
2233. Q. Were you down the mine the night of the creep? A. I was there soon after it occurred.
2234. Q. In going through these stopes at any time between the 400 and 500 level was there anything to lead you to think that it was dangerous? A. No.
2235. Q. You go through there pretty constantly? A. Every day.
2236. Q. Have you heard the timber speaking? A. Not while going through.
2237. Q. Did anyone report to you having heard falls of ground? A. No.
2238. Q. You have examined the ground as far as you can since the accident, in the different levels? A. I have been up above the 400 level where the gangway was. I was one of the first to start there before the other men would do it. We then made a start to try and find a gangway near the south shaft.
2239. Q. Could you form any idea as to the cause of the accident from what you have seen? A. My opinion is that there was not mullock enough in the South Mine to stay against the mullock that was in the Central.
2240. Q. And, therefore, the mullock from the Central went into the South Mine, is that what you mean? A. I do not know where the room was in the Central for it.
2241. Q. You have not had anything to do with the mullock in the Central? A. I am always going round where the mullockers were.
2242. Q. Did you see any shrinkage in the mullock? A. I could not say.
2243. Q. You know there is a shrinkage, but you have no idea how much? A. No, I have not.
2244. Mr. Wise.] Q. You were working all day shift? A. Yes.
2245. Q. Can you form any idea when you went in to run the chute;—how long ago? A. No.
2246. Q. Supposing where the ground was very heavy in timber would there be a great alteration in a month when the stope was going;—do not you think there would be a great difference in two months, in all probability? A. Yes.
2247. Q. Do you remember when you went to that chute which way you came out of it? A. I turned round and came out on my hands and knees.

Witness—E. Martin, 17 March, 1903.

2248. *Q.* What was the idea of two men being sent there? *A.* One man is not allowed to go into a stope. If one man is going to truck in sets where there are no miners working there must always be two men there.
2249. *Q.* Who complained about this baulk;—was it Lyons? *A.* I think it was.
2250. *Q.* To Crimp? *A.* No, I never heard Lyons speaking about it. Crimp spoke to me about it, I think it was, and he and Lyons and I went up there.
2251. *Q.* Did Lyons ever make a complaint to you about this baulk? *A.* No.
2252. *Q.* Who was it complained about this crack above the 400 level, the crack you went to inspect? *A.* No one complained to me about it.
2253. *Q.* What made you go there? *A.* We went about on account of the creep of June last, and we went round to see what we could see.
2254. *Q.* Do you know a A 2 stope;—is there such a stope? *A.* Yes.
2255. *Q.* Were the miners working there just before the creep? *A.* Yes.
2256. *Q.* Where? *A.* On the top floor, on the top side over the 400 level.
2257. *Q.* Is there a stope called A 3? *A.* Yes.
2258. *Q.* Were not men working there at the time of the smash? *A.* Yes.
2259. *Q.* Where were they working? *A.* On the south side from the main gangway going in south from the main crosscut, taking off a couple of runs of timber, two sets wide and two sets high.
2260. *Q.* Is there any pillar called A 3 pillar? *A.* Yes.
2261. *Q.* These men you mention were working a stope in A 3? *A.* Yes, on the south side of A 3, in A 3 pillar.
2262. *Q.* Do you know if it is customary for the mullock boss to ask the mullockers what the tally has been for the shift? *A.* Only running from the main mullock shaft as far as I know.
2263. *Q.* Was B 5 a main mullock shaft? *A.* Yes.
2264. *Q.* During the time you have been timber boss you have only been to the slide chute once? *A.* I have been there often.
2265. *Q.* How many times a week did you go? *A.* Once a week.
2266. *Q.* Did you ever see Mr. Hebbard there? *A.* No, I saw him in the stope.
2267. *Q.* Did you ever see any of the mine inspectors there? *A.* No, I never saw them there.
2268. *Q.* How many times have you seen Mr. Dawe there? *A.* Twice altogether.
2269. *Mr. Hall.* *Q.* These men were working in A 3 just about the time of the accident; you said they were taking off two sets high and two sets wide, was that not very near a dividing line of A 3 and A 4? *A.* No.
2270. *Q.* Near the gangway that goes between A 3 and A 4? *A.* It would be near the crosscut going into the south drive.
2271. *Q.* Near the crosscut between A 3 and A 4? *A.* Yes, there were four sets taken out years ago—in Mr. Rowe's time—and mullocked up.
2272. *Q.* In going into this chute I think you would have to go on your hands and knees? *A.* Yes, about eight sets.
2273. *Q.* You and Mr. Dawe were in this gangway about two days before the accident? *A.* Yes.
2274. *Q.* Was there anything dangerous about the backs or timbers? *A.* No.
2275. *Q.* Did anyone make any complaint to you about this slide? *A.* No.
2276. *Q.* You spoke of a cap there that had a "tom" or a "liner" on it or underneath it;—was it put there to repair it? *A.* Yes.
2277. *Q.* Did that make that specific cap safe? *A.* Yes.
2278. *Q.* On the occasion of your last visit before the accident with Mr. Dawe did you do anything or cause anything to be done to any cap there? *A.* That was at the time the "liner" was put in.
2279. *Q.* Is it a general rule in the mine that no man is to go alone into a gangway where other men are not working? *A.* A general rule in the mine.
2280. *Q.* Not referring to this chute specifically? *A.* No.
2281. *Q.* You have had a deal of experience, and in your opinion, as far as your experience goes, the principle of mullocking up after stoping, is that the best principle for the security of the miners and the safety of the mine? *A.* So far as I know.
2282. *Q.* You do not know of any improvement? *A.* No.
2283. *Q.* This crack that you told us you saw shortly after the June creep, about how wide would it be? *A.* It varied, you might place a 10 x 2 in it at some places.
2284. *Q.* As far as you can say was it caused by the June creep? *A.* Yes.
2285. *Q.* Directly Crimp reported to you about the baulk in A 4 giving way you had it repaired? *A.* Yes.
2286. *Q.* And in your opinion gave it the security required there? *A.* Yes.
2287. *Mr. Edwards.* *Q.* How long have you been in the Central Mine? *A.* About five years this time.
2288. *Q.* I understand you are some relation of the late Mr. Rowe? *A.* Yes.
2289. *Q.* You were timber boss under him? *A.* Yes.
2290. *Q.* I suppose you knew the condition of the South Mine on the boundary from your experience in Central? *A.* Only from what I saw on the 600 level.
2291. *Q.* Have you been down on the South boundary? *A.* Yes, I have been between the 600 and 700 foot levels.
2292. *Q.* I notice in the Central you work the pillar and stope plan? *A.* Yes.
2293. *Q.* Looking at it in this plan, up to Block 10 boundary there appears to be left every now and then very large pillars? *A.* I do not know anything about plans. I can show you any part underground, but I do not understand plans.

[Witness left.]

[The Commission adjourned till Tuesday, 18th March, at 10:30 a.m.]

WEDNESDAY,

WEDNESDAY, 18 MARCH, 1903.

[The Royal Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQ., POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Reuben Cock, called in, sworn, and examined:—

2294. *Commissioner.*] Q. What is your name in full? A. Reuben Cock.
2295. Q. What experience have you had in mining? A. I have had about eleven years off and on.
2296. Q. How many years have you been in Broken Hill mining? A. A little over three years. Before that I was in Western Australia.
2297. Q. What mines have you worked in here? A. The Proprietary and the Central Mines.
2298. Q. How long have you worked in the Central Mine? A. About twelve months altogether.
2299. Q. You were working in the Central Mine about September last? A. Yes; between the 400 and 500 levels.
2300. Q. Do you know the name of the pillar or stope you were working in? A. A 2 stope. Stopping and putting in square sets.
2301. Q. How long were you working there prior to the creep? A. To the best of my knowledge about eight shifts.
2302. Q. While working there did you hear any movements in the timbers or hear any falls? A. No.
2303. Q. How did the mine appear to you; did it appear safe as far as you saw? A. Yes; everything was all safe and snug to the best of my knowledge.
2304. Q. I suppose you were rather surprised to find it had come together in your absence? A. Yes; I was when I heard it next morning.
2305. Q. Did you go back? A. We went back next day, but there was no work doing, so I started at the Proprietary, and have been there ever since.
2306. Q. Was the system of working there safe? A. Yes.
2307. Q. Is there anything you could recommend to increase the safety? A. No.
2308. *Mr. Wise.*] Q. Do you know B 5 where Lyons was working at the time of the accident? A. No; I know nothing whatever about it.
2309. *Mr. Hall.*] Q. Was the mine well mullocked up? A. Yes.
2310. Q. Had you always everything you required to make the working safe and secure? A. Yes.
2311. Q. Did the bosses and management exercise proper caution and proper and careful supervision over your work? A. Yes.
2312. Q. Do you think this system of filling in depleted stopes with mullock and timber as followed out in the Central Mine is the safest system for the security of the mine and the safety of the men? A. Yes, I do.
2313. Q. Would you suggest any better course? A. No.
2314. Q. What shift were you working on at the time of the accident? A. Afternoon shift.
2315. Q. So far as your experience goes, did anything happen, or was there anything to give the most experienced and skilful miner any warning that that creep would take place? A. No; not while I was there.
2316. Q. I think you were working in this stope where the ground had shifted away from the back? A. Yes; taking that out and putting timber in.
2317. Q. As far as you saw you left everything safe in that stope when you left off that night? A. Yes.
2318. Q. Everything appeared right? A. Yes.
2319. *Mr. Edwards.*] Q. Did you hear timbers groaning? A. No.
2320. Q. You were working with Burg? A. Yes.
2321. Q. Do you know anything of any crack in any ground either on the 400 level or below the 400 level? A. No.
2322. Q. Did none of your mates ever point out a crack to you? A. No.
2323. Q. How long have you been working in the Central Mine? A. About eight shifts before that creep. I was there about twelve months altogether.
2324. Q. Do you know where there is a vug in the 600 level? A. No; I never worked in the 600 level.

[Witness left.]

George Williams, called in, sworn, and examined:—

2325. *Commissioner.*] Q. What is your full name? A. George Williams.
2326. Q. You are a miner, living in Broken Hill? A. Yes.
2327. Q. What experience have you had? A. Nine years.
2328. Q. How many years in Broken Hill? A. I have been about six years now in Broken Hill; I have been mining in South Australia and Western Australia.
2329. Q. What mines have you worked in here? A. The Central all the time.
2330. Q. About the months of September and October last you were working between the 400 and 500 foot levels? A. I was working at A 2 on the 500 level.
2331. Q. Did you work up to the time of the creep? A. Till 12 o'clock—the afternoon shift before the creep.

2332.

Witness—G. Williams, 18 March, 1903.

2332. *Q.* How long did you work in this particular place? *A.* About six weeks.
2333. *Q.* What was the nature of your work? *A.* I was taking up bottoms to put in crown sills on standing timber.
2334. *Q.* Was it solid ground? *A.* Yes, shooting ground.
2335. *Q.* Have you any idea of how many sets you took out during that time? *A.* We took out about seven sets.
2336. *Q.* You say you were working there about six weeks;—it took you six weeks to take out seven sets? *A.* Yes.
2337. *Q.* Were you on the sill floor or between the levels? *A.* We took out four sets on the sill floor and three sets higher up.
2338. *Q.* Who were your mates? *A.* McCubbin and Hollow.
2339. *Q.* Was Burg there? *A.* No; not in our party.
2340. *Q.* How did you find the ground there? *A.* I found it pretty safe while I was there; we heard no creaking or crying; it was just as safe when I came out as when I went in.
2341. *Q.* Did the ground seem to you quite safe? *A.* Yes; as far as my experience would lead me to believe.
2342. *Q.* You heard no falls or the timber speaking? *A.* None whatever.
2343. *Q.* Had you everything you wanted there? *A.* Everything we wanted was always to our hands.
2344. *Q.* What other parts of the Central Mine did you work in? *A.* On the 700 level.
2345. *Q.* How was it mullocked? *A.* Always full up, sometimes too full for our liking.
2346. *Q.* You mean it interfered with your work to a certain extent? *A.* It was filled up tight and we could not use the spawlers as we would like to.
2347. *Q.* Have you noticed the shrinkage of mullock? *A.* No.
2348. *Q.* You do not know how much it shrinks? *A.* I could not say.
2349. *Q.* Have you ever worked on the boundary of the South Mine in the Central? *A.* No, the closest I worked to the boundary was A 2.
2350. *Q.* Were you at the boundary then;—did you go into the south boundary? *A.* No, never.
2351. *Mr. Wise.] Q.* You took out seven sets in six weeks; you will admit that was slow work? *A.* No, I do not think so with these big square sets.
2352. *Q.* In ordinary circumstances you could take out more? *A.* It all depends upon the ground.
2353. *Q.* What was the matter with the ground? *A.* It was all right.
2354. *Q.* Do you remember any stopes being filled in the Central Mine with "white-lead," instead of mullock? *A.* No, I do not.
2355. *Q.* Do you know B 5? *A.* No, I do not.
2356. *Mr. Hall.] Q.* On the sill floor where you were taking out some sets, was the ground blasting ground? *A.* Yes, shooting ground.
2357. *Q.* That means hard ground? *A.* Yes.
2358. *Q.* At any time while you were working there had you any complaint to make as to the danger of the ground? *A.* None whatever.
2359. *Q.* As far as your experience goes were the bosses and managers careful and prudent men? *A.* Yes, very prudent, and made us put up timbers before we wanted to.
2360. *Q.* They strove more for the safety of the men than their own popularity? *A.* Yes.
2361. *Q.* The mullocking you say was carried close up? *A.* Yes.
2362. *Q.* Every precaution was taken there to have the place well mullocked up? *A.* Yes.
2363. *Q.* From your experience, in your opinion, is the plan of timbering and mullocking that is used by the Central Mine the safest plan for the security of the men and the safety of the mine? *A.* As far as I could see, I do not think they could do anything better than put in the square sets and fill them up.
2364. *Q.* When you worked that last shift in the mine before the creep was there anything there to show a most skilful miner that an accident was likely to happen? *A.* No; no warning whatever.
2365. *Q.* Do you know Joe Blackmore? *A.* I do not know him.
2366. *Mr. Edwards.] Q.* Were you working in A 2? *A.* In A 2 on the sill, one set up. In the stope.
2367. *Q.* Was Burg working on the same ground as you? *A.* Yes, he was working up between 400 and 500; I was working on the sill in A 2.
2368. *Q.* He says he was working in A 2? *A.* We worked on A 2, south end of the stope on the sill.
2369. *Q.* Were you using hand-drills or machines? *A.* I was using the hammer, hand labour.
2370. *Q.* You do not put in such heavy charges as with the machines? *A.* It all depends upon how deep you bore.
2371. *Q.* Did you not bore so deep with hand labour? *A.* If we got a chance—if we could swing it.
2372. *Q.* Were there any machines used? *A.* No.
2373. *Q.* When did they knock off using them? *A.* I could not tell you. Some machines were working, but not in that side. None towards the South.
2374. *Q.* Have they been used within the last six years south of the Kintore shaft? *A.* Not to my knowledge.
2375. *Q.* The vibration from a machine-drilled hole is a good deal greater than that from a hand drilled hole? *A.* It all depends upon the depth and the charge you put in.
2376. *Q.* Did you ever hear of any cracks in that ground? *A.* No.
2377. *Q.* Did you ever hear the timber talking? *A.* No.
2378. *Q.* Everything was as safe as possible? *A.* We were late that night in getting off, and I almost made up my mind to have a camp below—it was that safe.
2379. *Q.* Did you ever work on the 600 level? *A.* Yes.
2380. *Q.* Do you know where a vug is there? *A.* No, I never heard of a vug.
2381. *Q.* Never heard of a big vug being discovered there in 1897 at the 600 level? *A.* No.
2382. *Q.* Did you ever work on B 4? *A.* No.
2383. *Q.* What part of the 600 did you work on? *A.* In B 3.
2384. *Q.* Do you know the vug that runs into the B 3 at the 600 level? *A.* No.
2385. *Q.* Were you working there in 1897? *A.* No, I cannot say where I was working in 1897.
2386. *Q.* What other levels have you worked at in the Central Mine? *A.* At the 500, 600, and 700 levels.

2387. *Q.* In towards the south? *A.* No, north most of the time. At the 500 I worked in A 2.
 2388. *Q.* Do you know of any ore pillars left standing towards the south? *A.* Ore between A 2 and 3 is standing there.
 2389. *Q.* Who was Manager of the mine when you went there? *A.* Mr. William Rowe was underground manager, and Mr. Adams, General Manager.
 2390. *Q.* At that time all pillars were left standing? *A.* Yes, there are ore pillars there now.
 2391. *Q.* At all levels between Kintore shaft and the south all pillars were left standing? *A.* Yes.
 2392. *Q.* Do you know of any of these pillars being mined on during the last two years? *A.* I do not.
 2393. *Q.* Can you say if all pillars were left standing as they were two years ago? *A.* I have never been down past the 500 level during the past seven months.
 2394. *Commissioner.] Q.* Did you ever work above the 400 level? *A.* I did two shifts there only on a rise during Christmas time.
 2395. *Q.* Last Christmas? *A.* Yes.
 2396. *Q.* You have no knowledge of the ground above the 300? *A.* No, none whatever.
 2397. *Mr. Wise.] Q.* Do you know of any sets taken out other than in square sets in the Central Mine? *A.* Not to my knowledge.
 2398. *Q.* Without the square sets? *A.* The back stopes there were filled up to the top with mullock. They are worked up to the sill floor and square sets put round.
 [Witness left.]

Joseph Henry McCubbin, called in, sworn, and examined:—

2399. *Commissioner.] Q.* What is your name in full? *A.* Joseph Henry McCubbin.
 2400. *Q.* What are you? *A.* A miner.
 2401. *Q.* How many years have you been mining? *A.* Seven years.
 2402. *Q.* Where? *A.* In Western Australia.
 2403. *Q.* What mines have you worked in in Broken Hill? *A.* Block 10 and the Central.
 2404. *Q.* How long have you worked in the Central? *A.* About four years as near as I can say.
 2405. *Q.* You were working there, I believe, at the time of the creep? *A.* Yes.
 2406. *Q.* And for how long before the creep? *A.* About three years before the creep. I had been there three or four years up to the creep.
 2407. *Q.* What work were you doing at the time of the creep? *A.* Stopping on the 500 level in A 3 stope.
 2408. *Q.* Who were your mates? *A.* Nankivell, Williams, and Hollow.
 2409. *Q.* How long had you been in this particular place before the accident? *A.* About a month.
 2410. *Q.* What sort of ground were you taking out? *A.* Friable ore. It was solid. We had to shoot it.
 2411. *Q.* You worked on the sill floor? *A.* Yes.
 2412. *Q.* How many sets did you take out there? *A.* Ten sets on the sills, and we were on the next floor; we took out eight sets there. There were about seventeen or eighteen taken out altogether on the two floors; that was up to the time of the creep.
 2413. *Q.* What shift were you on? *A.* Afternoon shift.
 2414. *Q.* How did the ground appear? *A.* Everything was quite sound when we left the stope.
 2415. *Q.* Was there any movement? *A.* No, we never heard any movement whatever. Everything was quiet.
 2416. *Q.* Did you hear any falls or anything of that sort? *A.* No.
 2417. *Q.* Did you notice any cracks in any of the drives where you were working? *A.* No, I never noticed any.
 2418. *Q.* So far as you could see, the ground was safe? *A.* Yes.
 2419. *Q.* How often were you visited by the mine officials while you were working? *A.* Twice a shift by the shift boss, Chas. Anderson.
 2420. *Q.* Was there anything you wanted which you could not get? *A.* No, we always had everything we required.
 2421. *Mr. Wise.] Q.* Do you know A 2 stope? *A.* Yes, I know it.
 2422. *Q.* Do you know A 1 pillar? *A.* No.
 2423. *Q.* Do you know anything about B 5? *A.* No.
 2424. *Mr. Edwards.] Q.* What levels have you been working on in the Central? *A.* On the 500 and 600 levels.
 2425. *Q.* Between Kintore shaft and the south boundary? *A.* I worked at the back of Kintore shaft—at the north end of Kintore shaft.
 2426. *Q.* That would be going west? *A.* Yes, as near as I can see.
 2427. *Q.* Do you know of any pillars left standing on the south boundary? *A.* No.
 2428. *Q.* A 3—was that originally a pillar? *A.* The pillar between A 4 and A 2—it is standing there now.
 2429. *Q.* Is that the pillar you were stopping in? *A.* We were beside the old gangway.
 2430. *Q.* Do you know what was done on this pillar? *A.* I do not know; I never worked on that side of the 600.
 2431. *Q.* You do not know the original width of the A 3? *A.* About 50 feet.
 2432. *Q.* How much did you take off when stopping? *A.* About 14 feet—two sets wide. About 12 feet.
 2433. *Q.* Where;—on the south side? *A.* Yes.
 2434. *Q.* That would tend to weaken the pillar to a certain extent? *A.* I do not think so, it was a solid mass of ground.
 2435. *Q.* Was it crumbly? *A.* No, it is all sulphide.
 2436. *Q.* Do you know the locality of the old vugg that was there? *A.* No.
 2437. *Q.* Did you see any cracks being in the ore pillars? *A.* I never saw or heard of any on the 500 level.
 [Witness left.]

John Nankivell, called in, sworn, and examined:—

2438. *Commissioner.] Q.* What is your full name? *A.* John Nankivell.
 2439. *Q.* What are you? *A.* A miner.
 2440. *Q.* How many years experience have you had? *A.* Fully twenty years.

Witness—J. Nankivell, 18 March, 1903.

2441. *Q.* How long have you been working in Broken Hill? *A.* About thirteen or fourteen years off and on.
2442. *Q.* Where else have you worked? *A.* In all the other colonies.
2443. *Q.* What mines have you worked in in Broken Hill? *A.* The Block 14, Block 10, Junction North, and the Central.
2444. *Q.* How long have you worked in the Central? *A.* About seven months.
2445. *Q.* What part of the mine were you working in at the time of the creep? *A.* At A 3, on the 500 level.
2446. *Q.* How long had you been working in A 3? *A.* About four or five weeks.
2447. *Q.* What shift were you on? *A.* Afternoon shift. I knocked off at 12 o'clock the night before the creep.
2448. *Q.* What work were you doing there? *A.* Stopping.
2449. *Q.* What sort of ground was it, solid or loose? *A.* A little flakey and heavy.
2450. *Q.* Was it shooting ground? *A.* Yes, we would have to shoot sometimes.
2451. *Q.* Do you remember how many sets you took out? *A.* We put in a few sill sets—about six or eight—and altogether we put in about seventeen or eighteen tops and bottoms. She was two sets high at one end, and at the other end we only went one set. We were working both ends; but it all included the one stope.
2452. *Q.* While working here, were the timbers talking, or did you notice any movement? *A.* None whatever.
2453. *Q.* Did you hear any falls of ground? *A.* No.
2454. *Q.* There was nothing then to make you anticipate any danger? *A.* Nothing that we could see; the ground about us was timbered and mullocked up. So far as we saw, everything was perfectly safe.
2455. *Q.* Do you know B 5? *A.* I do not know anything about that; I was never up there.
2456. *Mr. Hall.] Q.* Had you everything ready at hand that you wanted there? *A.* Yes.
2457. *Q.* You had no complaints to make? *A.* No.
2458. *Q.* Is this system of timbering and mullocking supposed to be the safest way of mining? *A.* Yes.
2459. *Q.* Do you know of any better? *A.* No, I could not suggest anything better, as far as my experience goes. That is the best and safest way.
2460. *Q.* Was there anything to indicate that an accident was likely to take place when you left that night? *A.* No.
2461. *Q.* Everything appeared safe? *A.* Yes.
2462. *Mr. Edwards.] Q.* Assuming this A 3 was an ore pillar, and to some extent resisted the top and side pressure, would the work you were doing weaken the pillar? *A.* Not so far as I can see. In some parts we had to put in bottoms.
2463. *Q.* Why? *A.* To carry the other timber.
2464. *Q.* Was it broken away? *A.* No, we had to shoot it out.
2465. *Q.* Would it not weaken the pillar? *A.* Not so far as I could see. We did not know what was under it.
2466. *Q.* In the centre of A 3 going easterly, is there a stope there? *A.* There is a stope, A 2.
2467. *Q.* Right in the foot-wall in A 3? *A.* It might have been there; but I have never been up there.
2468. *Q.* How far from where you were working on the same level? *A.* We were working about 50 feet from A 2.
2469. *Q.* Was there a stope about nine or ten sets high? *A.* One up above us was working; but I do not know how many floors up.
2470. *Q.* You were working at the corner of A 3, were you not;—did you notice the commencement of another stope? *A.* The only one I know of was the one between us; I thought it was in A 2. We put our stope up to the end of the ground, and we were sent back to put in two sets to make it doubly secure.
2471. *Q.* There was one between A 2 and you? *A.* I never saw it. I know some chaps who were up there; I do not know their names; but I know they were working up above, for we used to hear their shots.
2472. *Q.* Were these men working up there at the time of the accident? *A.* They were shifted about a fortnight or three weeks before.
2473. *Q.* You have been mining a number of years, and have used machines and hand-drills; from your experience, can you knock out more dirt with machines than hand? *A.* Not in proportion. I think hand labour is before machines.
2474. *Q.* You could use machines on the 500 level in A 3? *A.* No, because it would shake it up too much. It is a vastly different thing using machines and hand-drills in ground that is flakey.
2475. *Q.* Would it be dangerous to use them? *A.* Not if we could keep the timber up the same as with hand-drilling. You could judge better with hand labour.
2476. *Q.* Was it necessary in this ground? *A.* The timber there would be catching the rocks, not the fine ground.
2477. *Q.* Do you know if any machine-drills were used in any part of the Central Mine south of the Kintore shaft? *A.* Yes, there were one or two, and when I went there they were stopped.
2478. *Q.* Did that imply that it was not safe to use them there? *A.* I do not know whether it was on account of the safety.
2479. *Q.* You will say you can break out more ore with machines than with hand-drills? *A.* I could not say.
2480. *Q.* These machines were knocked off in the Central shortly before the creep;—you can give no reason *A.* No.
2481. *Q.* The reason you did not use them was that hand-drills were safer? *A.* No, we were put there as hand-drillers.
2482. *Mr. Hall.] Q.* All you know of the machines is that there were one or two when you went there first? *A.* That is all.
2483. *Q.* They were not in general use all over the mine and stopped? *A.* No.
2484. *Mr. Wise.] Q.* You said there was a party of men working above you;—were they north, south, east, or west? *A.* As far as we could tell, we could hear the shot above us. They were not immediately above us.

[Witness left.]

Edward

Edward Prior, called in, sworn, and examined :—

2485. *Commissioner.*] *Q.* What is your full name? *A.* Edward Prior.
2486. *Q.* What are you? *A.* Timber man in the Central Mine.
2487. *Q.* Have you had mining experience? *A.* I have had thirteen years' experience on the Barrier.
2488. *Q.* Any mining experience before coming here? *A.* Only alluvial.
2489. *Q.* What mines particularly have you worked in here? *A.* I worked in the Central mostly since 1895. I have worked in the big mine, Block 11, a little in Block 10, but never in the South Mine.
2490. *Q.* Have you done any mining above the 300 level in the Central Mine? *A.* Yes.
2491. *Q.* What year would that be in? *A.* I could not exactly state. I was putting a stope down the winze.
2492. *Q.* You did no stoping above the 300 level? *A.* No.
2493. *Q.* How was the mining done in those days? *A.* There was filling, but not to such an extent as at present.
2494. *Q.* What level did you put this winze from? *A.* From the 200 to the 300.
2495. *Q.* What amount of work had been done in the 200 at this time? *A.* I could not say.
2496. *Q.* There was a stope where you put the winze from? *A.* No, not in the immediate place where we put it down, but there was one a little way from us.
2497. *Q.* Below that did you see any stoping? *A.* We came in contact with an old stope, which we opened up to make a mullock pass. I have no idea what size it was. It was filled with mullock, and we had to go through it.
2498. *Q.* You were working in the Central about the time of this creep? *A.* Yes; the night of the creep. We were working at C 3, about three sets in the 400 level.
2499. *Q.* Did you hear the creep? *A.* At about 5 minutes to 3, and while at work, there was a noise of rushing, and then the wind came up from the stope. There was no dust, and we heard no fall. We knew at the time that something had gone wrong, and we rushed over from the winze down to the 500 level, and on that level the first man we met was Cooley. I asked him if anything had happened, and he said, "Only a strong wind;" he did not understand it. We went a little further on the south side of B 3, and there we met Lyons and Prisk; I believe there was another man present, but I could not say who he was. They then told us that their mates, Jordan and Campbell, were in the stope. We then said, "You chaps had better go back into the cross cut, and we will see if we can effect an entrance to get to these men." We went a little further south and came upon the line running to the old shaft; that was about five or six sets from where Lyons was filling. The timber was then standing, though talking. We could see we had no chance of getting to the stope from that direction, as it was dangerous; we then made up our minds to return to the stope C 3 where we were working, and we went to the 400 level. Prisk, Lyons, and Cooley went to the 400 level with us. They stopped at the northern end of the mine. My mate (Slocum) and myself went down then to the plat-sheets; that would be the corner of B 5 stope. We thought by going through there that these men, Jordan and Campbell, would come up through A 2. While we were there the timbers were talking, and we could see the horses near the old centre shaft in the stables. Between us and the horses the ground was falling. When we got there it was dangerous to go to the A 2. We retraced our steps and went back through A 3 winze, and came again on the south end of B 3 at the 500. We followed the foot-wall down near the old main shaft, but the ground was working and there was a heap of logs in this drive, so we retraced our steps again and went down the B 3 winze to the 600 level. Lyons, Prisk, and Cooley went in the lead down to B 3 winze; we overtook them about six sets up from the 600-foot level; they were taking the wrong road, and we climbed up the steps again. When we got to the 600 we met some men there—Thornton and Stackpool. We rushed through the B 3 and got to the old main shaft, and after we had been there about 3 minutes, Albert Crimp, the mullock boss, came from the surface and told us he had been to the surface and despatched Rowe for the underground manager. Then we told him the men, Jordan and Campbell, were missing, and we could not effect an entrance. He then went down and sent the men to the surface. I came down again with the underground manager, and while we were at the plat the second fall occurred. We heard that fall; it was the first fall that had been heard by us, but there had been the one previous, but we did not hear it.
2500. *Q.* How did you know there had been a fall, you did not hear it? *A.* There would not have been so much wind in the place if there had not been. We heard the second fall. There was a lot of wind. My mate lay down flat and caught hold of the rails, and I went to the other side of the timber shaft and held on to the air columns; it would have blown us into the shaft if we had been standing up. After we heard the fall there was a rumbling.
2501. *Q.* What level were you on at this time? *A.* We were on the 600 level.
2502. *Q.* Could you tell whether the fall was above or below you? *A.* This fall was partly on the same level and above—according to the fall and the stuff running away. By that time the underground manager, Mr. Dawe, was with us. We went back partly to 53 and found it was dangerous, and we went down and came up the old shaft to the surface. After that we went below again—the underground manager, the foreman, Martin the timber boss, Crimp the mullock boss, Slocum, and myself, and when we got to the 500 level we found that all B 5, where Lyons had been trucking, had come away.
2503. *Q.* How near could you get to B 5 after the second fall? *A.* I could get to within four or six sets of it. We went from there right round on the west side, and came in from A 4 and tried to get into A 2 stope, but found we were cut off. We went to the 400, and the stopes that were standing when Slocum and I left them were all down.
2504. *Q.* You tried to get to B 5 chute after the first fall? *A.* When we went to Lyons I could have walked into B 5 chute.
2505. *Q.* How close did you get to it? *A.* We could have walked up and touched it.
2506. *Q.* Was the first or last rush of wind the greater? *A.* It was more to us on account of where we were. The fall came up from the 500. It came up, not down.
2507. *Q.* You think the fall was below the 500 level? *A.* To me the first one seemed to be away in the south. The second fall I would take it had come from the A 2 in the 500 level above where she was stoped. All the stopes above it in A 1 above the 400 level.
2508. *Q.* Have you done any work about this B 5 chute;—do you know it? *A.* Yes, well. I have lined that chute.

Witness—E. Prior, 18 March, 1903.

2509. *Q.* And at the top of the slide you had to go up some sets? *A.* About ten sets, and walk through A 2, A 1, and catch the winze at the corner of B 5.
2510. *Q.* You went through the gangway and got to the slide? *A.* The gangway on the south side of A 2 block.
2511. *Q.* Would the block be one side of the gangway? *A.* Yes.
2512. *Q.* When were you there last prior to the accident? *A.* About a month or six weeks; we were making the chute in A 2.
2513. *Q.* Were you at the slide that time? *A.* I have not been at the slide for some considerable time; the last work we did was to put the side timber in the chute and lay a line for the truck running to fill the chute.
2514. *Q.* Could you walk along to the slide? *A.* I could not say.
2515. *Q.* You have worked all over the mine;—have you done much work south of Kintore shaft? *A.* Yes, all over the mine.
2516. *Q.* At the 500 level? *A.* From the bottom to the top of the mine.
2517. *Q.* Have you heard any complaints as to any of the ground there? *A.* The ground is fairly good.
2518. *Q.* You frequently met Lyons while at work? *A.* Yes.
2519. *Q.* Has he ever made any complaint to you about B 5? *A.* He never made any complaint to me.
2520. *Q.* Have you ever worked in the South Mine, or very close to it on the boundary? *A.* I have been in it on the boundary.
2521. *Q.* How is that mullocked up? *A.* I could not say as to the mullocking.
2522. *Q.* Have you seen any open sets there? *A.* I could not go in very far. I did see open sets, but how many I could not say. That was at the 700 level.
2523. *Q.* Is it your idea that there were two falls? *A.* I am sure of it.
2524. *Q.* The first one was below the 500 level? *A.* The first one has taken place between the 600 to the 400, and has gone away into some cavity that existed somewhere along to the south.
2525. *Q.* And the second one came above? *A.* Yes, above the 400 level. B 5 chute and three sets of ground in A 1 and A 2; this came away with the second fall. That is my idea.
2526. *Mr. Hall.] Q.* Did this first rush of wind, when you were in C 3, extinguish your candles? *A.* It extinguished my mate's, but mine, being up on the back out of the wind, kept burning.
2527. *Q.* You know the tool-box on the 500 level? *A.* Yes.
2528. *Q.* Is that in the main gangway? *A.* Yes, going to the old main shaft, the gangway between Kintore and the old main shaft.
2529. *Q.* Did you find the tool-box there safe and the gangway standing? *A.* Yes.
2530. *Q.* Is that the occasion of which you told the Commissioner you could have walked up and touched B 5? *A.* Yes.
2531. *Q.* So it could have been standing at that time;—it could not have fallen at that time? *A.* It was standing at that time.
2532. *Q.* How far from the tool-box was Lyons? *A.* About 50 feet.
2533. *Q.* How did he seem? *A.* He was naturally excited.
2534. *Q.* When you were standing at the tool-box, could you see some distance? *A.* We could see the light through the gangway that went south.
2535. *Q.* The timbers along that gangway were all standing there? *A.* All standing, although talking.
2536. *Q.* How far from the break would you be when you went to the plat-sheets the second time? *A.* About 25 feet.
2537. *Q.* Could you see it along the cross-cut there? *A.* The first time we could see through into the old shaft there was a light on the plat.
2538. *Q.* The timber was all standing then? *A.* Yes.
2539. *Q.* You have worked in the mine some time;—what is your idea of the accident, from the sound you heard and from what you saw? *A.* In my opinion, the first fall was caused by a cavity existing somewhere in the South. The second fall was caused by the mullock and timber going away southward and leaving it without any support, and the great fall from the 400 had brought down the 500 stopes on the 500 level.
2540. *Q.* When you met Lyons and Prisk and the third man, who was it told you Jordan and Campbell were up in the chute? *A.* I could not say whether it was Lyons or Prisk. They said they had gone to run the B 5 chute.
2541. *Q.* Prior to this first rush of wind, was there anything to indicate that there was likely to be a break in the mine? *A.* Nothing whatever.
2542. *Q.* You are certain that when you saw Lyons that the tool-box and gangway leading to the old main shaft that the timbers were all standing there then? *A.* I am certain.
2543. *Mr. Wise.] Q.* Where was Cooley working? *A.* Throwing mullock up into a centre gangway in C 3 up on to the stage.
2544. *Q.* Do you remember anything in conversation with the miners about the rats in this particular shift? *A.* My mate, when he came back, remarked, as we generally do, about rats running round, but we would not take any notice of them being there, as we have crib there.
2545. *Q.* Might he have said he saw half a dozen? *A.* There would be nothing extraordinary in that; we often see half a dozen.
2546. *Q.* Do you know the slide where Jordan and Campbell were supposed to be? *A.* Yes; but I have not been there since it was re-mullocked.
2547. *Q.* Then I take it it is entirely altered since you were there last? *A.* It would not be a great deal; the sets were standing and half filled at the time.
2548. *Q.* Do you know how many men were working in the rescue party after the collapse occurred? *A.* Twelve miners and six mullockers, to bring timber to the 500 level.
2549. *Q.* On one shift? *A.* Four miners and two mullockers on one level. I know nothing about the winze party.
2550. *Q.* Do you know how many are engaged this morning on rescue work? *A.* I could not say.
2551. *Mr. Edwards.] Q.* As a timber man, you hold an important position in the mine? *A.* Not an extraordinarily important position.
2552. *Q.* You are next to the timber-boss? *A.* Under the timber-boss.

2553. *Q.* He holds a better position than the shift boss? *A.* Yes, as regards timber work.
2554. *Q.* I suppose the work of securing the Central Mine is partly your work? *A.* Yes, if places are dangerous.
2555. *Q.* Have you anything to do with filling up cavities? *A.* No, the mullockers generally do that.
2556. *Q.* You attribute the creep, not to a defect in your own mine, but to some fault on the part of the other fellow? *A.* I attribute it to a cavity somewhere in the South Mine.
2557. *Q.* Could you indicate where the cavity was? *A.* We found a place after the June creep, and we timber men were put there to see it well mullocked up; that was in the 400 level, in close proximity to the old south shaft in A 4.
2558. *Q.* What extent was that creep? *A.* The extent I could not exactly say, as we could not get down to the cavity; there was a cavity running down towards the South which we could not get down to.
2559. *Q.* Was that secured? *A.* I could not say; but we filled her up as tight as we could. Since then the surface has been sinking at the 400 level.
2560. *Q.* That cavity may not have been filled up? *A.* But it was filled up, as far as we could get it; we were 30 feet down.
2561. *Q.* If you pack in mullock a certain shrinkage will always take place, especially places like that? *A.* This was filled with skimps.
2562. *Q.* Is there any shrinkage in skimps? *A.* A little; I would not presume to say how much.
2563. *Q.* Are all your stopes packed tight with mullock? *A.* They are packed tight with mullock.
2564. *Q.* If a fall took place there would be great momentum; it would fall very heavy;—in stopes extending back perhaps 70 feet and ten sets high and ten sets across, that would take a lot of mullock to fill that? *A.* Yes.
2565. *Q.* You do not know where this cavity ended, whether in the Central or South? *A.* We got down about 20 or 30 feet, and we had a long scraper about 12 or 15 feet, and we put that down and found no bottom. We threw some loose earth down and could not hear it land at the bottom; it was still going.
2566. *Q.* So, for all you know, that cavity might have ended in the Central? *A.* It could not have ended in the Central ground, because we could have got at it.
2567. *Q.* How far from the boundary was this? *A.* About 80 feet; it went down about 1 in 10, I should think.
2568. *Q.* You were working in this place when Mr. Rowe was manager? *A.* Yes.
2569. *Q.* He was working the system of pillar and stope; and originally ore pillars were left between the boundary and the Kintore shaft? *A.* There were pillars all over 50 feet.
2570. *Q.* How many pillars were standing at the time of the last creep on the south of the shaft, towards the boundary? *A.* Two pillars, 50 feet wide; there may have been a set or two taken off A 3 pillar, the main gangway going.
2571. *Q.* That would leave the size of A 3 just about 46 feet? *A.* It was taken off one side; the middle would be full width. The other pillar was A 1, near the Kintore shaft. Stopping was done on the foot-wall side—east side. I could not say how much was done; we did some there ourselves. I am speaking now of the 500 level.
2572. *Q.* Are there any cracks there? *A.* There may be cracks on the foot wall coming from the creep.
2573. *Q.* Were there any cracks there before? *A.* No.
2574. *Q.* On the 400 level, was there any mining done on these pillars on the south side of the Kintore shaft? *A.* The pillars are there standing now.
2575. *Q.* On the 400 level, are there not two small stopes on A 3, in towards the foot-wall, right up against the main shaft? *A.* No, I do not know any stope worked there.
2576. *Q.* Go to the 500 level again; on A 3, do you not know the back stope there, right in front of the pillar—all crushed now? *A.* No, I do not.
2577. *Q.* Go to the 600 level, in A 3, do you know of any stopping being done in this pillar? *A.* Yes, a certain amount along the foot-wall. Only one stope in that pillar.
2578. *Q.* Go to the 700 level, in the same pillar? *A.* I do not know; I cannot say anything about the 700 level.
2579. *Q.* Do you know of any solid pillar left on your boundary—in the Central Mine—at the 400, 500, or 600 level? *A.* On the 600 level we were close up to the boundary. I could not swear to the 500. She was connected at the 600 level. I was there once.
2580. *Q.* If an ore pillar were left on the Central boundary, would this creep have taken place? *A.* Probably it would not.
2581. *Q.* Was it the South or the Central that went to the boundary first? *A.* The South, I should judge.
2582. *Q.* So, if the Central people had left the pillar in their boundary, it would not have come away? *A.* If the South had not come too close.
2583. *Q.* If the Central had left the ore pillar, would this creep have taken place? *A.* It all depends upon the pillar.
2584. *Q.* By working through to the South boundary, did you take away the support you should have had? *A.* It weakened the support; but if the stopes were well filled with mullock the support would have been there.
2585. *Q.* Before opening into the South, did you ascertain if it was well filled with mullock? *A.* No.
2586. *Q.* The rush of wind came up? *A.* Yes.
2587. *Q.* If that fall had been into the South, would that not have caused the air to go in there through their way? *A.* Not necessarily.
2588. *Q.* You say the fall was towards the open stopes in the South;—would that not force the wind through their way? *A.* Both ways. It would have forced it along the drive that Lyons was in.
2589. *Q.* The fall goes in this direction; the air would be behind it? *A.* It would be before it.
2590. *Q.* Would not the falling ground fill the gangways? *A.* But the air would go before the fall.
2591. *Mr. Hall.* *Q.* If in your opinion, the South had mullocked up the stopes, this would not have occurred? *A.* I could not say whether it was insufficiently filled stopes or a cavity existing there.
2592. *Q.* So far as your knowledge goes, the pillars have not been taken away since Mr. Rowe's management ceased? *A.* The pillars are there now, with the exception of a set or two.
2593. *Q.* Do you think the taking away of that set or two contributed to the accident in the slightest degree? *A.* Not in the slightest.

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2594. *Commissioner.*] Q. Do you know anything about the previous creeps? A. Yes, the one I was speaking of just now.
2595. Q. In June last year? A. Yes.
2596. Q. Was much ground affected by that? A. It showed a fissure running north-easterly from the south boundary. That affected the low stopes of the foot-wall to the south shaft.
2597. Q. Not the higher stopes? A. No; not above the 400 level.
2598. Q. Was the cause of that creep ascertained? A. That there was a cavity existing somewhere. We were working there and we could not locate the cavity.
2599. Q. That was the winze sunk by King and party to try and find the cavity? A. Yes.
2600. *Mr. Hall.*] Q. Do you know of any creep that has taken place in the South near the south boundary while you have been working in the Central? A. Yes, the time Harry Downs was killed near the boundary.
2601. Q. Do you know of any others that occurred in the South Mine? A. Yes, when Arty Trimbath was killed, that was in 1895.
2602. Q. Would not the natural effect of a creep be to leave a cavity? A. Of course, unless they could get to it.
2603. Q. So the only inference is that a cavity existed? A. Yes.
2604. *Mr. Wise.*] Q. Do you know anything about "vugs" in the Central Mine? A. Yes.
2605. Q. Do you know of one at the 600 level? A. Yes, in B 3. It was filled up just when I went there. We filled it up from the 600 level. It goes below the 600 level.
2606. Q. Where did they fill it from? A. It might have been filled from above, but I do not know. There is a stope over the top and if it was not filled the timber would not be standing there.
2607. *Mr. Edwards.*] Q. Do you know anything about a crack in any of the pillars on the 400 level, near where Lyons was working? A. I do not.
2608. Q. Do you know where Burge and Cock were working; they were working between the 400 and 500 levels; this crack is between the 400 and 500 levels? A. I do not remember anyone working there. I remember Manley working in A 2.
2609. Q. I asked him and he said in the same pillar as the mullock chute was on? A. That would be in A 1, it was on the south side of B 5, if he was working there it would naturally be A 1, within 50 feet of it. I do not know anything of a crack.
2610. Q. Do you know any crack in any standing ground in the mine? A. There are plenty of crevices.
2611. Q. That a man could crawl into? A. I would call these I am speaking about "waterworn."
2612. Q. They do not strengthen the mine, do they? A. It does not weaken it. It is not a sign of danger and they do not weaken the ground. There are several there, and can be seen at the present time.

[Witness left.]

[The Commission adjourned till Thursday, 19th March, at 10:30 a.m.]

THURSDAY, 19 MARCH, 1903.

[The Royal Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Thomas Cadwallader Roberts, called in, sworn, and re-examined:—

2613. *Commissioner.*] Q. Since you gave your evidence on the 13th instant you have made another inspection of the two mines? A. Yes.
2614. Q. You have seen everything you required to see? A. Yes.
2615. Q. Can you tell us the result of your observations? A. From what I have seen and in looking at the movements from the various points where we got to the boundaries, I am of opinion that both sides of the boundary has been worked by the two mines, racing to get the ore on the boundary, each trying to get it first.
2616. Q. You think the cause of the weakness was on the boundary line? A. On the boundary line.
2617. Q. What level do you think? A. It must have been down somewhere under the 500 level.
2618. Q. You have had a long mining experience and this is the result of your knowledge, as far as you can see? A. I have had fourteen years' experience in Broken Hill mines, and have been working in every mine along the line of lode.
2619. *Mr. Wise.*] Q. You stated the other day in your evidence that the Central Mine was well mullocked up and secure? A. In the places I worked in.
2620. Q. Did you work in more than one stope? A. I worked in A 2 all the time, so I could not know anything of the other portions of the mine.
2621. Q. In your opinion, do you think it is necessary to have a miner in charge of the mullockers? A. Yes, certainly; because mullockers have to go into big depleted stopes, and very often it is not safe to send mullockers in there unless the mullockers are sent by a practical miner.
2622. Q. Along the line of lode, mullockers are sent into as dangerous places as miners? A. Very often worse.
2623. Q. Where do you think this creep started? A. On the boundary line, it must have started from the bottom levels.

2624.

2624. *Commissioner.*] *Q.* A witness in giving evidence yesterday stated that they were working three sets in the 400 level and they felt a strong wind; that was apparently the first fall; they were afterwards on the 600 level and they heard a fall and a strong wind came on them; they were at the shaft, and had it not been for lying down and holding on they would have been blown into the shaft;—would that evidence alter your opinion as to the locality? *A.* No. You cannot tell much where the wind will travel in a fall, there are so many gangways—it may be forced through a shaft and back again up the other levels.
2625. *Q.* Do you think a fall in the lower levels could cause sufficient wind to blow out candles away from the boundary below the 400 level;—I want to know, from your mining experience, do you think it would be probable that the fall from the lower levels would cause sufficient wind at that distance away from the shaft at the 400 level? *A.* I do not think it would come in if they were working in the winze, four sets below the 400 level.
2626. *Mr. Hall.*] *Q.* I suppose how far the rush of wind would carry would depend upon the openings from which it could escape? *A.* If the winze is only sunk from one level, the wind could not come from the other level.
2627. *Q.* Where was the ground disturbed deepest—in the South or in the Central Mine—so far as you went? *A.* It was both sides.
2628. *Q.* As a matter of fact, was it not disturbed below the 700 level—or 725 feet—in the South Mine? *A.* It was 15 feet from the boundary at the 700 level. According to the plan, it is 25 feet in the Central.
2629. *Q.* If you could see the backs of the stopes in the Central right up against the boundary, would that not satisfy you that the disturbance could not have gone below the 600-foot level in the Central? *A.* I did not see any backs. I have not been close to the boundary of the Central; the closest place we got to the boundary was on the 700 level.
2630. *Q.* Was there any disturbance at 700-foot level on the boundary in the Central Mine where you were and went close up to the boundary? *A.* That is 15 feet from the boundary.
2631. *Q.* Was it not a mullocked-up stope, and not a crushed stope, that you saw in the Central? *A.* It was worked-out ground.
2632. *Q.* Some of the others went up two or three sets in the Central at the 700 level? *A.* Some went up two or three sets.
2633. *Q.* They went to see the boundary? *A.* I do not know.
2634. *Q.* On that level of the Central, you could not get nearer the boundary than 15 feet on the western and 45 feet on the eastern sides, on account of crushed stopes? *A.* Twenty-five feet one side; on foot side, 45 feet.
2635. *Q.* All that ground was crushed, and you could not go into it between these two points of the boundary? *A.* No; we could not go into it.
2636. *Q.* On the 600 level in the South, how near did you get to the boundary there? *A.* Thirty-seven feet.
2637. *Commissioner.*] *Q.* These measurements are only what you have been told? *A.* What I have been told, and what were put down on the plans.
2638. *Mr. Edwards.*] *Q.* Not being able to get in, it is only conjecture where it did occur? *A.* We could not get nearer to the boundary lines than these points on the levels.
2639. *Q.* You say it occurred on the boundary, and was brought about by the two parties rushing for the ore? *A.* Yes.
2640. *Q.* Assuming that one got to the boundary before the other, do you not think, if the second party had left a solid pillar of ore there, the fall would have taken place? *A.* If they had to leave a pillar, that would be unfair to one company.
2641. *Q.* I am not talking about unfairness;—supposing one party had got to the boundary, then the second party when getting to the boundary had left a solid pillar, would the creep have been so likely to have occurred? *A.* Right through, 50 feet surface to bottom, it is not so likely to occur.
2642. *Q.* You have had experience of the pillar and stope system;—is it not correct that the stope should be worked from pillar to pillar before the pillar is interfered with? *A.* Yes.
2643. *Q.* That is the pillar and stope system properly carried out;—while taking out the stopes, is it safe to interfere with the ore pillars? *A.* It is not right to take it out before the other pillar is worked out and filled up. The safest way is to take it out and fill it up with mullock before starting on the other one, stope and pillar about.
2644. *Q.* In the meantime, you do not interfere with the pillar? *A.* No.
2645. *Q.* Did you notice the extent of the creep in the 500 level in the Central, and which way it trended—going towards the north—block 10? *A.* When we came down the creep is running from one side of the chute to the other, from the 400 right down like south-east. I could not tell you how far north it extended.
2646. *Q.* Could you say whether it went further north at the 500 than the 400? *A.* No.
2647. *Q.* Has it been shown to you on the plan to-day? *A.* On the 500 level, according to the plan, taking the boundary-line, it is 45 feet from the Central and 20 feet from the South to the boundary. It is 296 feet on the 500 level.
2648. *Q.* You see from the plan that the creep extends considerably in a northerly direction? *A.* It might be.
2649. *Q.* Could the extension of the creep in a northerly direction be attributable to the fall in a southerly direction? *A.* Yes; 30 feet would not make much difference in a fall of ground like that, because ground in this level would be of a hard nature, and the level above might be softer.
2650. *Q.* You think it would run south and north? *A.* There may be no soft country there. I have seen ground like that.
2651. *Q.* Did you see anything in this ground to indicate such a condition? *A.* The ground in both mines is of that nature—soft and hard.
2652. *Q.* Were you taken to the foot-wall at the 400 level? *A.* At the 400 level we went up to the back of the creep, when we worked right down from the crusk and came out on the drive in the 400 level.
2653. *Q.* That is towards the hanging-wall? *A.* I could not say; we were crawling about.
2654. *Q.* You saw a very big cavity at the 400 level? *A.* Yes.

Witness—T. C. Roberts, 19 March, 1903.

2655. *Q.* At what angle will mullock run? *A.* It all depends on whether it is lumpy or fine—1 in 1.
2656. *Q.* Can you say where all the mullock ran to? *A.* It has gone to some cavity, somewhere.
2657. *Q.* Does it not point to a cavity in the Central Mine? *A.* It is on the line of boundary, but we cannot know where it is.
2658. *Q.* From your inspection, you say there was a cavity in the lower levels, and you cannot say whether it was in the Central or South? *A.* From the point of view we took, the ore has been taken out according to the plans; and from what we saw on the line of boundary, both sides of the line, somebody has left something unfilled. It has taken the country with it, and when it does go it leaves room for more to go after it.
2659. *Q.* Assuming that the South had a big stope loaded up with mullock—say, facing the drive and through the breaking of a lath or paddocking giving way,—would it cause a run? *A.* It would cause a run.
2660. *Q.* Would it cause sufficient to make a creep, supposing the paddocking gave way in some of these stopes? *A.* I do not think I could answer a question like that in regard to a general view of things.
2661. *Q.* If the paddocking gave way in one of the stopes, would that not be sufficient to produce a creep? *A.* Yes.
2662. *Q.* Assuming you are working the pillar and stope system, one on each side of the ore pillar which is not filled in between, and a space is left between the filling and the timber, is that not in itself an element of danger, if once started with a heavy stope behind it? *A.* There should be a pillar on the other side as well.
2663. *Q.* Timber on both sides of the stope, in between the filling? *A.* They fill as they work. They leave a ladder-way to work in.
2664. *Mr. Hall.*] *Q.* You saw the plan of the Central Mine at the 700 level, showing that there was no crushed ground from the creep on their side;—which level is it where the creep is shown on the plan as being approximately 36 feet from the boundary? *A.* At the 600 level.
2665. *Q.* You did not wish me to understand that you saw any signs of the creep at the 700 level? *A.* No.
2666. *Q.* In the South, there are signs of a very big piece of ground on the 700 level? *A.* Forty-five feet on the foot side and 15 feet on the other.
2667. *Q.* It was inaccessible for that distance? *A.* I could not go any further.
2668. *Q.* Can you remember if, in the South Mine, you could go up from the 700 to the 600 in a ladder, or did you have to go by the cage? *A.* By the cage.
2669. *Q.* So far as you know, it is impossible to explore the workings on the boundary of the Central Mine from the 600 to the 700 foot levels in the South Mine? *A.* That is the two points we were taken to—from the 45 feet and 15 feet.
2670. *Q.* You were told you could not go through the steps? *A.* That is it.
2671. *Q.* And from the 600 to the 500 levels you also went down by the cage, and could not be taken through the workings in the South Mine? *A.* Yes.
2672. *Q.* This cavity Mr. Edwards speaks of as seeing in the Central Mine on the 400 level, which way did it trend? *A.* We came north from the shaft, and then we went up about 20 feet to the top of it. We went round in all directions, and turned to all points of the compass.
2673. *Q.* Were you informed how close to the south boundary the bottom of the cavity was? *A.* We only took the boundaries as given to us on every level we went down.
2674. *Mr. Wise.*] *Q.* During your mining experience in Broken Hill, have you been in any creeps or collapses? *A.* I have been in a good few.
2675. *Q.* Have you ever known of stopes to collapse without giving previous warnings? *A.* All I have seen have given warnings.
2676. *Q.* Never seen one collapse without warning? *A.* No; not in square-set timbers.
2677. *Q.* Do you think two Mining Inspectors are sufficient to supervise the working of the mines here? *A.* No; I think they want more.
2678. *Q.* Do you think it possible for one Mining Inspector to exercise proper supervision? *A.* The big mine would take one Inspector alone.
2679. *Commissioner.*] *Q.* How often do you think a stope should be inspected? *A.* It would not hurt for an Inspector to come through a stope once a week.
2680. *Mr. Edwards.*] *Q.* As an experienced miner, you have worked hand drills and machine-drills, and is it not your experience that a machine drill takes a bigger charge than a hand-drill, and does more work? *A.* That is what it has to be there for.
2681. *Q.* What would you say about a mine where machines were knocked off and hand-drills put on again on account of the vibration? *A.* The ground changes sometimes.
2682. *Q.* But all through the mine? *A.* The ground must be not quite safe.

[Witness left.]

Charles Richards, recalled, sworn, and examined:—

2683. *Commissioner.*] *Q.* Since you gave your evidence here on the 13th instant you have made a thorough inspection of both mines? *A.* Yes.
2684. *Q.* You visited the levels from the 400 down? *A.* Yes.
2685. *Q.* Did you see anything to cause you to alter the opinion previously expressed? *A.* No, nothing to alter it.
2686. *Q.* You found, I believe, the disturbance was of a large area on the 500 and 600 levels in the Central Mine? *A.* Yes; we could see very little on the 700 level; it was not showing on the 700 level.
2687. *Q.* In the South Mine was it so large? *A.* Not so much in the South as in the Central. It reached further down; it was below the 700 level. We climbed up some eight or ten sets from the 800 level, and there we saw the disturbance in the South Mine.
2688. *Q.* Do you know the Central Mine;—are you well acquainted with it? *A.* I have not been in either mine since 1893, and could not speak of it.

2689.

2689. *Q.* You saw a large cavity below the 400 level in the Central? *A.* The cavity we saw was above the 400, at the back; we had to climb up some 30 or 35 feet. We went down from the mullock and got down in the 400 level, where we saw the cavity.
2690. *Q.* Do you think, from what you have seen of the disturbance, that all this stuff could run into the South? *A.* It would depend upon the cavity in the South to take it.
2691. *Mr. Wise.] Q.* In your opinion, is it necessary to have a miner in charge of mullockers—practical miners? *A.* There should at least be someone who understood the work; I do not know that it should be a practical miner.
2692. *Q.* By a practical miner I mean a man who understands danger? *A.* Yes; because he would have a better idea where to send the men. We often see men underground who will go anywhere, and do not look to see where danger might be.
2693. *Q.* From your experience along the line of lode, have mullockers to go into dangerous places? *A.* Yes.
2694. *Q.* Have you ever had any experience of creeps or collapses? *A.* No.
2695. *Q.* Do you think two Mining Inspectors can exercise a proper supervision over these mines? *A.* I am not clear as to the work they have to do. An inspector could go there every day, and yet he could not exercise proper supervision.
2696. *Q.* Do you think it would be possible for one man to exercise proper supervision over the big mine? *A.* It would take him all his time.
2697. *Mr. Edwards.] Q.* You have had a lot of experience of hand-drills and machines;—there is no doubt about the superiority of the machines over hand-drills for quantity of work? *A.* It all depends upon the nature of the ground. Some ground you could not use machines in at all—too soft. For hard ground, machines are better than hand.
2698. *Q.* If you saw a mine with most of the machines in the tool-house and the men working hand-drills, what would you say? *A.* I should say they were working against their own interests.
2699. *Q.* Would it indicate anything regarding the nature of the ground if they worked hand drills? *A.* If it was hard ground I know machine-drills do better work.
2700. *Q.* Were you shown any cracks at the 400 level while underground? *A.* No.
2701. *Q.* Do you know the extent of the fall at the 400 level—what ground came away in the Central Mine? *A.* There was about 28 or 35 feet above the 400 level; I could not say what extent.
2702. *Q.* Did they show you any place known as “vug” in the 600 level? *A.* Yes.
2703. *Q.* Did you see a crushed stope? *A.* It was slightly crushed, but we could not see much about it.
2704. *Q.* Did you see any crushing in the stope? *A.* No.
2705. *Q.* Did you go along the drive in the stope? *A.* Yes.
2706. *Q.* Did you notice that the timbers were kept up by “tongs” a few feet from the level? *A.* Yes, one with “tongs” across.
2707. *Q.* Did you notice the legs twisted and bent, and a 10 x 10 crushed half its size? *A.* No.
2708. *Q.* Did you see evidence of a very heavy pressure—side-pressure and back-pressure? *A.* Side; I could not say about top-pressure.
2709. *Q.* Coming from where? *A.* From both sides of the drive, apparently.
2710. *Q.* And would be caused by the bottoms giving way—sinking? *A.* I could not say.
2711. *Q.* Did they show you a “vug” at the 700 feet? *A.* No.
2712. *Q.* You have been in the Central Mine? *A.* No; not the last ten or eleven years.
2713. *Q.* You have seen “vugs” in these mines? *A.* I have, but not large ones.
2714. *Q.* Do you know in what description of ground they occur? *A.* Sometimes fairly solid backs.
2715. *Q.* Would you consider a pillar with a “vug” 85 feet deep in it a safe pillar to stand? *A.* Not quite safe.
2716. *Q.* You cannot locate the position of the boundary where the creep started, either in the South or Central? *A.* No.
2717. *Q.* Assuming that the Central Mine had left an ore-pillar on that boundary, would that creep have occurred? *A.* It is quite possible it could.
2718. *Q.* Would it have gone into the South? *A.* It would all depend on whether the South stopes were mullocked-up or not.
2719. *Q.* Would a mullocked-up stope hold up an ore-pillar? *A.* It would hold better than a stope not mullocked.
2720. *Q.* Would an ore-pillar be some support—a 40 or 50-foot ore-pillar,—would it be a support to the boundary? *A.* Yes, it would.
2721. *Mr. Hall.] Q.* I take it that if the filling collapsed in a “vug,” the stope itself would have collapsed? *A.* Yes.
2722. *Q.* Did you notice any evidence of that stope having collapsed above the “vug”? *A.* No.
2723. *Q.* I take it, what you mean about hand-drills and machine-drills being used in a mine, that different ground is suitable to different methods of work? *A.* Yes.
2724. *Q.* You would require to know what was the reason for taking machines out of the ground? *A.* Yes.
2725. *Q.* You noticed this cavity somewhere near the 400 level in the Central Mine? *A.* Yes.
2726. *Q.* Which way did it run—perpendicularly down or in a southerly direction? *A.* It tended in a southerly direction—in the direction of the South Mine.
2727. *Q.* Were you fairly near the South Mine boundary when you got to the bottom of the cavity? *A.* Much nearer than at the top of it.
2728. *Q.* You noticed some mullock being tipped into that cavity? *A.* Yes.
2729. *Q.* Was the rill of that mullock towards the South Mine? *A.* They had been mullocking from two points; it ran towards the South Mine in places nearest to the South.
2730. *Q.* From the evidence you saw there in that cavity, must there have been some cavity or partly-open stopes underneath that level? *A.* Yes.
2731. *Q.* And are the probabilities not in favour of the cavity being to the south side of the Central and on the south line of boundary? *A.* I could not say.
2732. *Q.* You say that a pillar would be some protection in a mine? *A.* Yes.
2733. *Q.* But you have not expressed an opinion as to what size of a pillar would be necessary for safety—whether 50, or 20 or 100 feet? *A.* I have not.

Witness—C. Richards, 19 March, 1903.

2734. Q. A pillar, say, 50 feet in width might be stoped at for a considerable extent without impairing its protective powers? A. The more you cut away from a pillar the easier it would give way.
 2735. Q. A pillar 30 feet wide might answer the purpose of a pillar that was 50 feet in width? A. It might answer the same.
 2736. Q. I suppose a pillar 12 feet wide would be very little protection? A. Very little.
 2737. Q. One 24 feet wide might have a better effect? A. Yes.

[Witness left.]

William Macfarlane Dale, called in, sworn, and examined:—

2738. *Commissioner.*] Q. What is your name? A. William Macfarlane Dale.
 2739. Q. What are you? A. A miner.
 2740. Q. How many years' experience have you had, and where? A. About seventeen years in all since 1886; partly in South Australia, and about ten years in Broken Hill.
 2741. Q. What mines have you worked in here? A. In the British, Block 14, three different blocks in the Proprietary, Block 10, and the Central.
 2742. Q. I believe you and three others inspected the Central and South mines shortly after the creep? A. Yes.
 2743. Q. You also visited it on Saturday and Monday? A. I was not there on Saturday. I was one of the party on Monday who went through the South Mine.
 2744. Q. What opinion did you come to from what you saw there? A. In the South Mine things were about in the same position as when we visited them on the 15th October.
 2745. Q. What conclusion did you come to as to the cause of the accident? A. I consider there must have been some open country somewhere in some of the lower levels and caused the creep.
 2746. Q. Could you have any idea of which mine it was in—whether in the South or Central? A. I really could not do that; the creep was apparently great. We visited it seven or eight days after it occurred, and it was that close to the boundary that it was almost impossible to say which mine was responsible for the shrinkage. Of course, we inspected the Central Mine first, and everything seemed to be making towards the South Mine. Of course, the lode naturally runs that way, but there must have been a shrinkage somewhere. There must have been a large cavity somewhere on the boundary to cause the collapse.
 2747. Q. In the South Mine, how did you find the broken ground trending? A. You could not form an opinion there because you could not get in. We inspected the South Mine a few days after and could not tell. You could go so far and no further. In the Central everything appeared to be going towards the South. In the Central we could see where it was going, but in the South we could not see which way it was going. There must have been a big cavity somewhere in the lower levels—about the 600 or 700—at the boundary.
 2748. Q. Do you think it was a creep or a fall of ground? A. I think it was a terrific creep, not a fall. It must have gone away and broke the ground from level to level as she went.
 2749. Q. Do you think a creep such as that might be sufficient to cause wind to be felt 600 feet away, and blow out the candles? A. I do. There must have been a terrific creep.
 2750. Q. Have you ever been in or near a creep or near one immediately before one;—does it give any warning? A. In some cases it does, and in some cases it does not. Sometimes it will gradually go away, and in some cases it goes away without warning very suddenly.
 2751. Q. Have you ever worked in the South Mine? A. No.
 2752. Q. How long have you worked in the Central? A. I could not tell exactly. I have worked there at different times. The first time I worked there was a little over five years ago. At that time I worked at the 400 level.
 2753. Q. How was the ground left—what mullocking was done? A. They used to fill up with mullock very well. There was a lot of open cut business going on then that used to get closed with mullock.
 2754. Q. That has been your experience, as far as you have seen, in the Central? A. Yes.
 2755. Q. Have you ever worked on the south boundary? A. No.
 2756. Q. As far as the system of working in the Central was concerned, was there any improvement you could suggest for the safety of the miners? A. I do not know anything I can suggest. It is fairly mullocked as a rule. On the boundary line, I do not think it is wise to go on working on the boundaries as they evidently have been doing. I would suggest that a pillar be left 15 feet on the Central side and 15 feet on the South side.
 2757. Q. Do you think it would be wise if there was legislation to make such a thing compulsory—to leave a certain amount on the boundary? A. Yes.
 2758. Q. The size of the pillar would have to be governed by the nature and size of the lode? A. Yes.
 2759. *Mr. Wise.*] Q. I suppose you know that mullockers are often sent into dangerous places? A. Yes; and so are miners, and they have to take the risk; bad ground you have to go into to secure.
 2760. Q. Do you think a competent miner should be in charge of the mullockers? A. Yes.
 2761. Q. For the reason that they have to go into dangerous places? A. Mullockers do not stop long in a mine. The first chance they get of going mining they take it; and, therefore, there should be a competent miner in charge of the mullockers.
 2762. Q. Did you ever know of a creep going without giving some warning? A. Not a huge creep like this. I have known small bits of falls, 300 or 400 tons may come down and give no warning. If there is any timber and mullock about you will generally get warning.
 2763. Q. You said you considered that everything had been done in the Central Mine regarding the safety of the mine;—have you been all over the Central Mine? A. I have worked on the three levels—400, 500, and 600 levels in the Central Mine.
 2764. Q. Do you think two mining inspectors are sufficient for Broken Hill and the outlying districts? A. I hardly think it is.
 2765. Q. Do you think one mining inspector could supervise the big mine alone? A. It would just about take him all his time.

2766. *Mr. Edwards.*] *Q.* You said you noticed everything appeared to be going towards the south in the Central Mine;—what levels were you on then? *A.* From the 400 down to the 800.
2767. *Q.* Did you notice, when you got to the 500 level, that the creep was extending to the north-east instead of dipping towards the south;—it was going north? *Q.* It was dipping easterly or north easterly across in the direction of about South Broken Hill.
2768. *Q.* On the 400 level the creep extended from the Kintore shaft to the main cross-cut going to the old main shaft? *A.* Yes, away to the south of South Broken Hill.
2769. *Q.* Did you notice on the 500 level whether the influence of the creep had extended more than on the 400 level? *A.* No.
2770. *Q.* Did you not notice it had extended on the 500 level in a north-easterly direction? *A.* No.
2771. *Q.* As a miner, do you think, if the South Mine people had got to the boundary first, and the Central left a pillar there this creep would have occurred? *A.* I could not say whether it could have been prevented or not. The force of the mullock in the other mine might have forced the pillar.
2772. *Q.* Assuming the South had been on the boundary first, in your opinion, was it good mining to bring down heavily loaded stopes on to this worked-out ground without an ore pillar between? *A.* No, certainly not; if you take the ore away, you should secure the ground afterwards.
2773. *Q.* Have you had any experience of the pillar and stope system? *A.* Yes, in the Central Mine. I last worked there six or seven weeks ago.
2774. *Mr. Hall.*] *Q.* Do you think it is fair, either for the miners or the mine, for one mine to work up to the boundary and take out every spoonful of payable ore, and ask the other man to leave 50 feet of their ore to protect their mine? *A.* No.
2775. *Q.* Mr. Edwards asked you if you thought the pillar left by the Central Mine would have averted the accident;—it would depend upon the size of the pillar? *A.* Yes.
2776. *Q.* Do you think a 12-foot pillar on the Central boundary would have been sufficient to have averted this creep? *A.* It might have; I could not say for certain.
2777. *Q.* If the South had, after working up to the boundary where it joins the Central, mullocked up their depleted stopes, would it not have helped a great deal to avert the accident;—it would have been very beneficial, and would be much better than skeleton stopes? *A.* Yes; if mullocked timbers they are better than skeletons.

[Witness left.]

Albert Slocum, called in, sworn, and examined:—

2778. *Commissioner.*] *Q.* What is your full name? *A.* Albert Slocum.
2779. *Q.* What are you? *A.* A timberman in the Central Mine.
2780. *Q.* How many years' experience have you had? *A.* About eleven years. Six years in Broken Hill. I was working in Victoria and West Australia as a miner.
2781. *Q.* What mines have you worked in in Broken Hill? *A.* Chiefly in the Central Mine. I have never worked in the South Mine. I worked in Block 10 several weeks, and the rest of the time in the Central.
2782. *Q.* You remember the creep of October last? *A.* Yes.
2783. *Q.* Where were you then? *A.* We were working in C 3 stope, between the 400 and the 500 level—two or three sets from the 400. We were timbering a mullock slide. The first thing we knew of the creep was the wind rushing on us, which came up the chute. It blew my light out. Prior was my mate, but he had his light fixed somewhere in the shade, and it did not blow out. It was a fairly strong wind. We heard no noise, only the rushing of the wind. We came to the conclusion there was a fall, and went down to the 500 level.
2784. *Q.* Had you any idea where the fall was? *A.* We thought it was back that way, from the way the wind came. When we got to the 500 level we met one of the mullockers. I think it was Cooley and Prisk. Cooley was in the C 3 stope filling a centre gangway. When we found Cooley we went out towards the Kintore shaft out the main drive. We found Prisk in the main gangway that is now leading to the old main shaft about the B 3 stope. Prisk and Lyons were there. Lyons said his two mates, Jordan and Campbell, were up running the B 5 chute. We went in to see if we could see any signs of them. We went up towards the tool-box—towards the B 5. We got as far as the tool-box, about 4 or 5 sets from the chute. We could not get any further; the timber was talking a bit, and cracking and going on, and we would not venture. The mullock was not running, but the timber was talking, and the movement was on. We could not see up any distance.
2785. *Q.* You knew Jordan and Campbell were up ten floors? *A.* They would be up almost over our heads then.
2786. *Q.* There would be no possibility of the men getting down that chute;—it would be full? *A.* They would have a chance, but it would be a poor one. We found it would be impossible to get any nearer than the tool-house, so we went back as far as B 3 gangway leading to the old main shaft. We went from there to the 400 level. Lyons, Prisk, and Cooley came up after us. When we got to the 400 level we went out to the nearest point we could get to where the B 5 chute was underneath. We went out to the plat-sheets that the trucks turn on.
2787. *Q.* Where were these particular plat sheets, how far from the chute; was that on the 400-foot level? *A.* Coming in from the north drive—the corner between the north drive and the main shaft. When we got there we found a general movement was on. We could not attempt to go any further.
2788. *Q.* Could you have got down? *A.* There was nothing to stop us, but the timber and rocks were falling. The road was clear, but we did not consider it safe to go.
2789. *Q.* There seemed to be a general movement going on south of you? *A.* Yes, it was cracking in towards the south where we were standing on the plat-sheets. When we found we could not get in there, we went back to the north end, and down to the 500 level again, and we went out to the old main shaft in the drive. We found a pile of timber there, and the old main drive was blocked, and we did not consider we were safe in pulling that out.
2790. *Q.* Was the timber there before the creep, or was it the result of the creep? *A.* I think it was there before. It was a pile of timber stacked loose. After that we went down the B 3 stope to the 600 level.

We

Witness—A. Slocum, 19 March, 1903.

We went out to the old shaft, and we had been there a few seconds when we saw the mullock boss, Crimp. Then he went to the 700 level and brought some men out and told us he would send back the cage. While waiting for the cage another fall occurred, we prepared ourselves, and I laid down on the side of the drive. I could hear the rocks belting the tanks and the pipes. Then there was a big fall, apparently in the direction of the west part of the mine from where I was. I could not say whether it was higher or lower than where we were. There was a terrible gust of wind and dust.

2791. *Q.* You only heard one fall? *A.* Yes, while we were at the 600 level. We felt the wind from the first, but did not hear it. The cage came down with Mr. Dawe in it.

2792. *Q.* Have you been round near B 5 since? *A.* Yes.

2793. *Q.* How near could you get to the tool-box now? *A.* Quite close to it. I have seen the corner of the tool-box since the creep.

2794. *Q.* I believe the mullockers generally follow you timber men; is the ground not usually timbered before mullocking;—do not the mullockers follow you and make the ground safe for the miners? *A.* Not at all times, our work is repairing.

2795. *Q.* I thought you worked in connection with the mullockers? *A.* If any place is broken down, we are sent to repair it, and we have to see that they are safe.

2796. *Q.* The miner sees that everything is safe overhead, and the mullockers go after the miners, so there is no need for the mullockers to be in dangerous places at all, or do the mullockers work in the open ground? *A.* Under the timber.

2797. *Q.* There is no danger in filling up after the miner; in the open-stope system, does not the mullocker work in under the same roof as the miner, and therefore he would be safe? *A.* Yes.

2798. *Q.* Have you ever worked in the south boundary? *A.* Yes, on the 600 level.

2799. *Q.* Have you ever been through into the South Mine? *A.* Yes, just on the border, not far through.

2800. *Q.* Did you find any open stopes there? *A.* Yes, there had been places there on the 600 level, a few sets, but I never took particular notice how many. It was square set.

2801. *Q.* Was it more than one set high? *A.* Yes. I could not say how much ground though.

2802. *Mr. Hall.] Q.* How long ago is it since you were at the boundary of the Central? *A.* Within the last twelve months.

2803. *Q.* Who were you working with there? *A.* Prior.

2804. *Q.* Were you just repairing timbers there? *A.* Yes, repairing timber and altering a chute.

2805. *Q.* Were these sets you told us of in the South or the Central Mine? *A.* They were across the boundary in the South Mine.

2806. *Q.* Was the work you were doing putting in a chute for tipping mullock into the South Mine? *A.* Yes, we were altering the front of it, and putting it in order so as to turn the corner.

2807. *Q.* The Central were putting mullock into the South Mine by arrangement? *A.* I understood so.

2808. *Q.* Do you remember a creep that occurred, and the effect of which was felt in the Central Mine, about June last? *A.* Yes.

2809. *Q.* Did you and Prior fill up any cavities then in the Central Mine somewhere near the south boundary? *A.* Yes, we were filling up a cavity and looking after some mullockers who were filling up a cavity which was below the 400 level.

2810. *Q.* When you went to it first on the night of the creep was the tool-box standing? *A.* Yes, everything standing.

2811. *Q.* The gangway and tool-box at that time had not collapsed? *A.* No.

2812. *Q.* You went from the 500 to the 400 and you went as near as you could to the disturbed stope? *A.* Yes.

2813. *Q.* Where were the plat sheets which you told us you stood at the night of the creep? *A.* About three or four sets back.

2814. *Q.* While standing there could you see along the main cross-cut to the old 400 level? *A.* Yes.

2815. *Q.* Were the timbers standing along that main cross-cut? *A.* Yes.

2816. *Q.* There had been no fall then? *A.* No.

2817. *Q.* Did you see the stables. *A.* I could see the stables, but not the horses.

2818. *Q.* I understand you went back to the 500 level the second time, did you get the mullockers to go to a safe place? *A.* We told them to. Some of them took our advice, and some never.

2819. *Q.* Can you tell us approximately what length of time elapsed between the first rush of wind and the second rush of wind when you heard the fall? *A.* About twenty-five minutes to half an hour.

2820. *Q.* Are you, as timbermen, given all the timber you require by the management? *A.* Yes.

2821. *Q.* There was no skimping at all? *A.* No.

2822. *Q.* You say the mullockers follow on after the miners; so, if the miners make themselves safe with their timbers, the mullockers would be safe also? *A.* Yes.

2823. *Mr. Etwards.] Q.* After the June creep, you filled up some cavity;—what direction was that going? *A.* Southwards.

2824. *Q.* At what incline was it running? *A.* I do not know.

2825. *Q.* King said it was an incline of 1 in 30, what incline would you say it was going at? *A.* It would go down pretty steep.

2826. *Q.* Can you say what incline it would be, have you any idea? *A.* I know nothing about grades.

2827. *Q.* You went into the South Mine and saw some empty sets there at the 600 level? *A.* Yes.

2828. *Q.* The ones you found empty, could you say they were not filled up by the Central? *A.* I do not know.

2829. *Q.* Was it within the last twelve months that you put that chute there? *A.* Somewhere near about it.

2830. *Q.* Was it within the last eighteen months? *A.* I would not say.

2831. *Q.* Do you know what work the miners were doing in towards the boundary, towards the Kintore shaft, within the last eighteen months? *A.* I could not say.

2832. *Q.* Ground that was intended for ore pillars, have you seen men stoping in these pillars between the Kintore shaft and the south boundary? *A.* No, not in the south end of the mine. I do not know of any blocks being stoped there.

2833. *Q.* As far as you know they are standing the same as they were? *A.* I could not say. There has been a big settlement since I was there.

2834.

2834. *Q.* You are a practical miner? *A.* I consider myself so.
2835. *Q.* Supposing the South Mine had mined up to the boundary in big open stopes, rightly or wrongly, do you think it good mining to bring down filled-up stopes on to the open stopes without any ore pillar between them;—you would thus have filled stopes pressing against open stopes;—say, for instance, the skeleton stopes are there, is it right for the Central Mine to bring down their filled stopes to come up against these empty stopes;—do you consider that good mining? *A.* I consider the empty stopes should be filled up.
2836. *Q.* Supposing they were never filled up, would it be good mining to bring down filled stopes against them? *A.* No, it would not.
2837. *Q.* Do you know who got to the boundary first with their stopes? *A.* I could not say.
2838. *Q.* The first time you went there, did you find the South had a big stope in front of you? *A.* Yes, they had a stope at the 600 level.
2839. *Q.* Do you know if the miners in the Central Mine have been using machines or hand drills? *A.* They were using both.
2840. *Q.* Which did they use most of? *A.* I think most of the drills, hand-drills.
2841. *Q.* Is it not a fact that they have left off using the machines, and particularly in the south part of the mine? *A.* I could not say.
2842. *Q.* Were you in the tool store on the 500 level shortly before the creep? *A.* Before the creep I went into the fitter's shop.
2843. *Q.* Do you know if all the machines were not stored there then? *A.* I cannot say.
2844. *Mr. Wise.] Q.* Do you know B 5 chute? *A.* Yes?
2845. *Q.* Is it on a solid or a worked-out stope? *A.* I think it is solid ground on one side part of the way, but I could not say as to the whole of the way.
2846. *Q.* Is it called a main mullock shaft? *A.* I suppose you will consider it a main one.
2847. *Q.* Where does the mullock come from? *A.* From the open cut.
2848. *Q.* Is there any other chute to get mullock from the top? *A.* I could not say. There used to be two at one time.
2849. *Q.* This B 5, do you ever remember that going up to the 400-foot level? *A.* Yes, they used to tip down there.
2850. *Q.* Did it ever extend from the 500 to the 400 levels? *A.* Yes, I think it did.
2851. *Q.* Whereabouts was this early B 5, where did it strike the level from the 400 to the surface. How far away from the B 5 chute? *A.* As near as I can remember about three sets.
2852. *Q.* At that time you used to truck dirt from that chute and tip it into the other? *A.* I could not say.
2853. *Q.* After the second fall did you and anybody go to the tool box? *A.* Yes; after we had gone up the old shaft we went down when the engine driver came, we went down with Dawe, Martin, Crimp, Prior, and myself.
2854. *Q.* Was there any dust flying about then? *A.* There was dust and it was a bit foggy, but you could see plain enough.
2855. *Q.* Could you see B 5 then the same as it was before? *A.* I would not say it was standing, because I could not see, not on account of the dust, for there is an electric light there.
2856. *Q.* Can you tell me how many men were engaged in rescue work after the accident? *A.* No, I could not, there were a good few.
2857. *Q.* Where any men engaged in rescue work yesterday? *A.* No, I do not know of any.
2858. *Q.* Do you often see the Mining Inspectors underground? *A.* Yes, I often see them underground.
2859. *Q.* Do you see them once a month? *A.* I do not suppose it would average once a month, three or four times a year. We might see them within a week or two, and we might be in some other part of the mine next time.
2860. *Q.* Is it customary for the mullock boss to get the tally of the number of trucks at the close of each shift? *A.* I could not tell you that.
2861. *Mr. Hall.] Q.* You said you had an opinion of your own about what caused the settlement in October, would you give it to us? *A.* My opinion is that there was a vast cavity three or four times as big as the one existing at the present time in the South Mine which was the cause of the disaster.
2862. *Q.* By a cavity, do you mean a vug or unmullocked stopes? *A.* I do not know whether it was a vug or unmullocked stopes or both.
2863. *Q.* It is in your opinion that some cavity in the South Mine was the primary cause? *A.* Yes.
2864. *Mr. Edwards.] Q.* It would be interesting to know the grounds for that opinion? *A.* I have grounded my opinion on that as we filled up the crack which existed after the June creep, and at that time I saw a big hole existing that I mentioned about going down and where we put the mullock in.
2865. *Q.* How far from the boundary? *A.* It might be about 60 or 80 feet.
2866. *Q.* Could you see where that hole ended? *A.* I have pelted stones down and they rolled away into the distance, I have been underneath and could find nothing of it. I think the fall of the south boundary has gone away and dragged the other with it.
2867. *Q.* Not having been down to the bottom of the hole can you say whether it ends in the Central or the South? *A.* I could see the Central boundary at the other level underneath, and I am satisfied it does not go out there, for the stope is filled up.
2868. *Q.* That starts 80 feet back, the level is only 100 feet? *A.* It might not have been 80 feet back.
2869. *Mr. Hall.] Q.* You saw underneath at the next level in the Central, and there was no opening there? *A.* No.
2870. *Mr. Wise.] Q.* Do you know if just before the collapse there were any stopes below the 500 level unfilled? *A.* No, every stope I know of was mullocked up on the south end.
2871. *Q.* Was there any higher? *A.* I do not know of any stopes not mullocked.

[Witness left.]

[The Commission adjourned till Friday, 20th March, at 10-30 a.m.]

FRIDAY,

FRIDAY, 20 MARCH, 1903.

[The Royal Commission sat at 10:30 a.m., in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and
Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company
(No-Liability).Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that
Association.

John Needham, called in, sworn, and examined:—

2872. Q. What is your name in full? A. John Needham.

2873. Q. What are you? A. A mullock boss in the Central Mine.

2874. Q. What mining experience have you had? A. I have been connected with mines for the last eleven
years on Broken Hill.

2875. Q. Have you had any previous experience? A. Yes, a little in coalmines.

2876. Q. On the night of the 8th October last, what shift were you on? A. I was on the afternoon shift.

2877. Q. Do you know B 5 chute? A. Yes.

2878. Q. Did you see that chute on the night of the creep? A. Yes.

2879. Q. At about what time? A. Between 7:20 and 7:30 p.m.

2880. Q. What work did you do in connection with it? A. I went round the chute. I ran the chute.

2881. Q. From what level? A. I went down from the 400 level.

2882. Q. Was anybody with you? A. Yes, John Spennigall.

2883. Q. What occasioned your going down to run it? A. The chute was empty. As a general rule when
passing down I look in at the chute, and if it is empty I run it.2884. Q. You went down the gangway from the 400 level. Then you went along the gangway to the
chute. How far would that be;—what length of gangway? A. The gangway would be about 45 or 50 feet.2885. Q. How did you get there? A. In going through the gangway we had to crawl on our hands and
knees. As a rule we used to run it lying down. If we had gone to the trouble of cleaning it out a bit,
there would have been plenty of room to run it.2886. Q. After you ran the chute? A. I left and went up to the 400 level again. I had been from the
400 to the 500 levels at the beginning of the shift.2887. Q. During your visits to the 400 and 500 levels was there any talking in the timbers at all? A. No;
none at all.

2888. Q. There was no sign of a collapse whatever? A. No.

2889. Q. You left before the movement took place? A. I went up to the surface about ten minutes to
12 o'clock.2890. Q. Do you know anything about a cavity on the boundary of the South Mine on the 400 level? A. I
was down there.

2891. Q. When were you down there? A. Soon after the drive was put through—the winze.

2892. Q. That one which King and party put through? A. Yes.

2893. Q. When was that? A. The first time I went down it was an open cavern, they lowered me down.

2894. Q. How far from the bottom of the winze was it to the mullock? A. A I could not say exactly.
Only having a candle, I could not see to the bottom to ascertain the depth. As far as I could see, it was a
good depth. She seemed to run in a south-easterly direction. I threw a stone down and it seemed to run
a long way.

2895. Q. You could not see the bottom? A. No.

2896. Q. Where you went down, how far was it from the boundary? A. About 20 or 25 feet from the
boundary. I could not say exactly.2897. Q. In what direction was it running at the bottom? A. It was running in a sort of south-east
direction.

2898. Q. What slope would this be running at? A. I could not tell, for I could not see down.

2899. Q. What slope would be required so that mullock would run down? A. Well, from 40 to 45 degrees
—1 in 1—it would require about that before it would run.

2900. Q. What depth was this winze? A. I do not know for certain; about 35 or 40 feet.

2901. Q. Have you any idea how far below the winze you went? A. No.

2902. Q. Was there any timber there? A. There was timber on the east side, and a track was standing
there.

2903. Q. The timber was not up to the roof? A. No; in the cavity.

2904. Q. Can you say how far the timber was from the bottom? A. I could not say. I could not see any
timbers in the cavity.2905. Q. You afterwards had these places filled up? A. Mullock was put in, but I was not supervising it;
the miners were doing it, as it was not safe for the mullockers.

2906. Q. You went down a second time? A. Yes.

2907. Q. How long afterwards? A. I think about a shift afterwards. There was no difference then
between that time and when I was down before.

2908. Q. You say this stuff was put down by the miners, as it was not safe for the mullockers? A. Yes.

2909. Mr. Hall.] Q. You ran this B 5 chute somewhere about half-past 7 the evening before the creep?
A. Yes.

2910. Q. Was the chute in a safe and sound condition then? A. Yes.

2911.

2911. Q. Was this chute loose, and did it shake very much as soon as you started it to run? A. No.
2912. Q. Was it in a perfectly safe condition? A. Yes.
2913. Q. Was this an isolated time, or did you run it frequently before the accident? A. I had run it very frequently.
2914. Q. Was there the slightest risk about that chute or gangway? A. No.
2915. Q. Did you have any hesitation yourself in running it when you did? A. No; I used to run it regularly myself.
2916. Q. Were the timbers in the gangway all secure? A. One cap was slightly crushed.
2917. Q. Had that been attended to and secured? A. Yes.
2918. Q. As far as you can see, the timbers were quite safe and secure the night of the creep occurring? A. Yes.
2919. Q. In your opinion was there any danger at all of that chute collapsing while being run? A. No.
2920. Q. It has been said that the men, when running that chute, would be in danger of being smothered if the chute burst;—what have you to say to that;—do you think there was any danger of the chute bursting at all? A. No; the winze was in solid ground.
2921. Q. Supposing, for the sake of argument, that through some unforeseen occurrence that chute had burst, was there any chance of the men being smothered;—those who were running it? A. No.
2922. Q. How was that? A. The winze was in solid ground, and the set in which they would be lying to run the chute was on one side, and the winze had a square set lying flat with the timber.
2923. Q. So that in itself would protect the men lying there, even if it did burst? A. Yes.
2924. Q. Now, either on that shift, or any shift previously for some time, was there any cracking of timbers or anything to indicate the probability of a creep taking place? A. I never heard any timbers talking. I used to go in A 2 regularly. I used to go through three or four times a shift.
2925. Q. Had you every facility to notice if any cracking was occurring in the timbers, or anything of the sort going on there? A. Yes.
2926. Q. Supposing the men had thought it dangerous to run that chute in a lying-down position, how long would it have taken them to have cleared standing room at the slide—approximately? A. Five or ten minutes. The set was partly filled. Five minutes shovelling would have given them plenty of room.
2927. Q. It would not have taken long to have cleared this whole gangway if it had been thought advisable? A. It was the better of being filled as it was.
2928. Q. In your opinion it was better as it was. Was that better for the safety of the men and the security of the mine? A. Yes.
2929. Q. From what you did see from day to day about there did this accident start in that chute or at that gangway? A. No, I do not think so, there was not sufficient weight overhead to start that.
2930. Q. Where do you think it came away from? A. In my opinion she came away somewhere lower down, because the B 5 or A 1 which you go through in the gangway is mullocked up right up to the back—to the ore.
2931. Q. You know the old south shaft, before the June creep was there any cavity possible? A. No. At the 400 there was a cavity after the June creep.
2932. Q. The south shaft is about 80 feet from the boundary? A. Yes.
2933. Q. You know the winze the Commissioner was asking about, with regard to the south boundary and south shaft where is that winze situated? A. From the south shaft to the winze we sank would be about south-west.
2934. Q. Is it about half way from the south shaft and south boundary? A. A little nearer the south boundary.
2935. Q. That would be roughly about 40 or 50 feet from the south shaft? A. Yes.
2936. Q. And you told us the cavity would be about at the foot of the winze, about 40 feet from the 400 level there? A. Yes.
2937. Q. I think this fact is apparent—that this cavity was at the 400 level 80 feet from the South Mine and roughly 40 feet from the South Mine lower down, so that would be running at about an angle of 1 in 1? A. Yes.
2938. Q. Where you saw the cavity was to the south of this winze? A. South-east of the winze. When we went down the winze it was to the south east of the winze.
2939. Q. And extending in the direction of the South Mine? A. Yes.
2940. Q. Can you say, approximately what breadth this cavity was from where you could see it—was it a narrow hole or did it extend some distance? A. I could give no idea as we only had a candle and could not see far.
2941. Q. The light of the candle did not penetrate to its edges and did not show you its limits—its boundaries? A. No.
2942. Q. I think you told us you did not have anything to do with the filling? A. No, I did not.
2943. Q. About how far from the winze was the edge of this cavern or cavity—how far from the bottom of the winze? A. Almost immediately from the bottom of the winze.
2944. *Mr. Edwards.* Q. So far as you know the size and depth of this cavity was never proved? A. Not by me.
2945. Q. Who were the men sinking the winze who holed through into this cavity? A. I think Simmons and Wise. Wise I think was on the windlass.
2946. Q. Was Goodman? A. I could not say, I know men by their faces, but not by their names.
2947. Q. I suppose in the course of your operations you go on more than one level? A. All levels.
2948. Q. Do you know if, after the discovery of the cavity in June, any mining operations were carried on in that part of the mine? A. There was only the drive being driven to the south boundary on that level.
2949. Q. The ordinary mining operations were carried on? A. No mining operations were carried on for two or three blocks from the boundary until we got to the 700 level.
2950. Q. Was there any stoping being done on any of the ore pillars? A. There was stoping being done in the stopes.
2951. Q. Near or in the vicinity, or above or below this cavity? A. There might have been a little at A 4 on the 500 level, but I do not think a great deal.
2952. Q. The cavity first appeared on the 400 level in the old south shaft immediately on the level? A. She went down from the level.

Witness—J. Needham, 20 March, 1903.

2953. *Q.* How far below the level did she first make her appearance? *A.* At the south shaft she must have been 20 feet—if not more—running off south to the cavity down underneath.
2954. *Q.* She first made her appearance 20 feet below the level of the 400;—where did she first appear—below the 400 level, at the old south shaft? *A.* At the south shaft, right on the level. Whether there was a crack at the side of the south shaft I do not know, but I do not think she went down much there. It was on the level.
2955. *Q.* Did it go north? *A.* It went south.
2956. *Q.* Did it go in a northerly direction? *A.* At the stope on that level, almost at the edge of the shaft.
2957. *Q.* At the south edge? *A.* The north edge.
2958. *Q.* Has any investigation been made for it as far as you know? *A.* I never saw anything on the north.
2959. *Q.* As far as you know it stopped on the north side of the old south shaft? *A.* It ran in on the south to the crosscut that was filled with skimps.
2960. *Q.* Have you any idea of the quantity of mullock put in? *A.* No.
2961. *Q.* Did you do any mullocking on it after the October creep? *A.* No.
2962. *Q.* Do you know if mullock was put in by some of the men? *A.* I had nothing to do with it.
2963. *Q.* Was any stoping done in the 500 or 600 levels east of the old south shaft after June? *A.* No.
2964. *Mr. Wise.] Q.* Where was the mullock going that Lyons was trucking? *A.* I could not say.
- Commissioner.]* To C 2 chute I think.
2965. *Mr. Wise.] Q.* From your experience in the Central Mine, are mullockers sent to dangerous places? *A.* No, not if considered dangerous—miners are put there.
2966. *Q.* You know they have to go to dangerous places? *A.* Not if it is considered dangerous. Never, unless somebody is with them—miners or somebody else.
2967. *Q.* Previous to the collapse used there to be shift bosses on the night-shift underground? *A.* Yes; there was at one time, but I think some time before the creep occurred.
2968. *Q.* Has anybody been appointed to take charge of this night shift lately? *A.* Yes.
2969. *Q.* How often used you to see the slide on top of B 5? *A.* When we were working at the stopes we were trucking from the B 5. I went there nearly every day.
2970. *Q.* Did you see either of the mine inspectors at the slide chute? *A.* I have seen them in the stope A 2.
2971. *Q.* This B 5 chute, is it in the A 2 stope? *A.* No; it is in B 5 stope.
2972. *Q.* Have you any idea of how many men were engaged in rescue work after the accident happened? *A.* No.
2973. *Q.* When did you work at the Central last? *A.* Last night.
2974. *Q.* Were there any men engaged on rescue work last night? *A.* No, not to my knowledge.
2975. *Mr. Hall.] Q.* At the south shaft on the 400 level you could go round on the north side of the shaft after the creep; it was undisturbed there? *A.* Yes.

[Witness left.]

Robert Cox, called in, sworn, and examined:—

2976. *Commissioner.] Q.* What is your name? *A.* Robert Cox.
2977. *Q.* You are one of the shift bosses in the Central Mine? *A.* Yes.
2978. *Q.* What experience have you had in mining? *A.* About thirty years.
2979. *Q.* How long in Broken Hill? *A.* About eight years.
2980. *Q.* And previously? *A.* At Cornwall, Devonshire, and Lancashire in the old country.
2981. *Q.* What mines have you worked in at Broken Hill? *A.* The Proprietary, Junction, Central, but never in the South Mine.
2982. *Q.* You remember the creep of June last? *A.* Yes.
2983. *Q.* You remember there was a cavity somewhere on the 400 level near the old south shaft? *A.* I do.
2984. *Q.* Did you see this cavity at any time? *A.* Yes.
2985. *Q.* How did you get down there? *A.* From the 400 level, the cavity was at the bottom of the old south shaft.
2986. *Q.* Did you go into it? *A.* Yes.
2987. *Q.* In what way? *A.* After some skimps had been tipped down we went down over the pile.
2988. *Q.* Were they put down in the old South shaft? *A.* Yes.
2989. *Q.* And you were lowered down? *A.* No, I walked down. It was partly filled up at that time.
2990. *Q.* When you got in what did you see? *A.* It seemed to be a big break and had gone away in a southerly direction.
2991. *Q.* You did not get to the bottom? *A.* I could not get to the bottom.
2992. *Q.* Could you see the size of it? *A.* I could see it was about 30 feet wide.
2993. *Q.* South of the shaft? *A.* Yes.
2994. *Q.* This was filled up? *A.* Yes, as far as it could be, from the skimps coming down the old shaft.
2995. *Q.* What was done afterwards? *A.* We went further south of the stope and sank a winze.
2996. *Q.* That was sunk by King and party? *A.* Goodman and Daley were on shift with me. I was in charge of it.
2997. *Q.* Were you there when the winze was put through? *A.* Yes.
2998. *Q.* Did you go down? *A.* Yes, to the bottom of the winze.
2999. *Q.* After it was broken through did you go through into the broken country? *A.* They broke through into a stope.
3000. *Q.* Was there any timber in the stope? *A.* Yes, there were some sets standing.
3001. *Q.* Were there any down? *A.* No, none of them down; it had been filled to within the top set. Where the winze broke through it was back to the stope, and sets were standing right against the back.
3002. *Q.* Were they filled? *A.* The bottom sets had been filled and the top left open so as to get in on top with the truck.
3003. *Q.* I understand there was a truck there? *A.* Yes.

3004. *Q.* Did you get through the cavity at all, or see anything of it? *A.* At the south end from where the timbers were standing there was a cavity extending to the south. The mullockers were running mullock into the cavity not timbered beyond that. That was the end of the ground as far as could be seen from there.
3005. *Q.* By the end of the ground you mean? *A.* As far as the ground—the slope—was worked south of the central pillar.
3006. *Q.* Where was the cavity? *A.* It went in in a south-easterly direction. From the end of the timber we went south-east.
3007. *Q.* Had there been any timber there where you saw the cavity? *A.* You could get down to where the mullock ran away south.
3008. *Q.* It had apparently been portion of an old slope? *A.* It had been worked up underneath to that back, and this mullock ran away down from where the timber stopped.
3009. *Q.* Did that conclude the investigation—you did not go further down? *A.* I went down as far as I thought it was safe.
3010. *Q.* Did you see anything further? *A.* The mullock was still running away down there, and I could see no end to it. I threw a stone down and could not hear it strike the bottom; it seemed to be rolling yet.
3011. *Q.* Did it appear to you to be a big cavity? *A.* Yes; you could get up and down over the mullock. A man would be able to walk about in a stooping position; it was about 4 ft. 6 in. after some of the mullock had been put in.
3012. *Q.* Do you know if it was filled up? *A.* We filled it as far as the mullock would run.
3013. *Q.* At what slope will mullock generally run? *A.* I suppose it would take about 1 in 1 for that class of mullock—skimps and damp mullock.
3014. *Q.* Could you give me an idea of the shrinkage in filling into squares et timbers;—I suppose it would all depend on the pressure? *A.* Yes. If you had hard ground—coarse mullock out of the drive, it would not shrink as much as soft damp skimps.
3015. *Q.* The ordinary mullock you use for filling, what would that shrink in proportion? *A.* I could not exactly say. It would shrink a bit, but I could not say how much.
3016. *Q.* As much as 1 in 10? *A.* I could not say.
3017. *Mr. Hall.] Q.* In the Central Mine what is the system of mullocking;—is a set taken out and that mullocked up? *A.* Two or three sets are taken out and that is paddocked off with 10 x 2.
3018. *Q.* And the miners broke down the ore on top of the mullock that had been filled there? *A.* After taking out a run and then filled up, that would be the next set above the truck.
3019. *Q.* They would break down on top of the mullock? *A.* Yes.
3020. *Q.* That would tend to stamp down the mullock, harden it, and reduce the shrinkage. *A.* Yes.
3021. *Q.* I believe you have worked on the Proprietary Mine? *A.* Yes; I was timber-man there for five years.
3022. *Q.* And there they take out vertically about 100 feet and fill it up with mullock? *A.* Yes.
3023. *Q.* Naturally in such a system as that the shrinkage would be more than in filling on set by set? *A.* I should think it would, for in the latter case the gradual breaking of the ore would make the bottom sets solid.
3024. *Q.* I understand you did not explore this cavity until a considerable amount of mullock had been put in? *A.* No.
3025. *Q.* When you told us it was 4 ft. 6 in. that was on top of the mullock you had been putting there, you would not give us the height before the mullock was put there, because you did not go in? *A.* No; I could not say.
3026. *Q.* Could you say from the position of the winze—approximately—how far the winze was from the south boundary, if it went into the South Mine or not? *A.* I should certainly think it did go into the South Mine.
3027. *Q.* Could you say from the distance you could see when you went into the cavity whether it really extended into the South Mine? *A.* I should certainly think it did, because I could see 15 feet ahead.
3028. *Q.* Approximately, how far south of the winze were you standing when you could see 15 feet ahead into the South Mine? *A.* When the winze broke through we had to go a full set south—6 feet—and further south than that about 15 feet—about 22 feet.
3029. *Q.* That would be 37 feet? *A.* Yes.
3030. *Q.* Apart from getting into the South Mine, at the bottom of the cavity, do you know anything about the drive that went into the South Mine at the 400-foot level, at this place? *A.* Yes.
3031. *Q.* Did you go into the South Mine from there at all? *A.* Yes.
3032. *Q.* What did you find there? *A.* We broke into one of the sets of the South Mine.
3033. *Q.* Was it mullocked up, or were the timbers standing? *A.* One or two sets on the sill had been mullocked.
3034. *Q.* One or two sets on the sill had been mullocked, and the rest were standing open? *A.* Yes; without being filled.
3035. *Q.* Did you go any distance into the South Mine at this point? *A.* About 100 feet.
3036. *Q.* Still the timbers were in that condition? *A.* There was a set here and there mullocked up.
3037. *Q.* Did you go up any set at all? *A.* Yes; I went up to the third floor.
3038. *Q.* And you saw above you still? *A.* Yes; the slope was still continuing above me.
3039. *Q.* Could you say at all how wide the slope appeared there? *A.* About five sets wide; I did not count them.
3040. *Q.* Can you say how long after the drive had been put into the South Mine when you went in? *A.* The drive was broken through during the afternoon shift, and I went through on the day shift shortly after.
3041. *Q.* That drive was not put in till after the June creep? *A.* No; we finished mullocking up in the winze, and the men were put there to break into the South boundary.
3042. *Q.* You went into the South Mine after the winze was mullocked up? *A.* Yes.
3043. *Q.* I think you told us you were working on day shift the day before the accident, on the 400 level? *A.* Yes.
3044. *Q.* Going through the 400 and 500 levels, was there anything at all to indicate danger or an impending accident in any way? *A.* Nothing out of the ordinary. Everything was just as under ordinary circumstances.

Witness—R. Cox, 20 March, 1903.

3045. Q. Did you notice anything different from the ordinary for some time previous? A. After the creep in June, we had particular orders to take notice of a crack that appeared in the drive cutting into the old south shaft on the 400 level. We used to inspect that every day to see if it was opening out more. There was nothing out of the usual course of things.
3046. Q. Nothing to indicate an impending creep in any way? A. Nothing at all.
3047. Q. Do you know Manley? A. Yes.
3048. Q. Did he report anything to you some time before the October creep? A. Yes; he was working in A2 stope. At the time of my visit he said he had heard a fall.
3049. Q. In consequence of this did you do anything? A. I looked round the stope where they were working, but I could see nothing.
3050. Q. Could you discover anything in any of the Central workings to show there had been a fall? A. No; nothing at all.
3051. Q. Do you know B5;—had you occasion to be past there on any occasions just before the creep occurred? A. I had to pass it every day, going from the 400 to the 500 level.
3052. Q. Was the timber talking or cracking in any way whatever? A. No.
3053. Q. Did everything appear ship-shape and secure? A. Yes.
3054. Q. Was any complaint made to you by anyone about the place? A. No; never at any time.
3055. Q. [Commissioner.] This crack you refer to, where was it? A. About 70 feet west of the old south shaft.
3056. Q. That is a separate crack altogether? A. Yes.
3057. Mr. Edwards.] Q. This cavern in itself was not considered of great importance in the Central Mine? A. We thought it was of very great importance. We filled it up with skimp.
3058. Q. And went on with your work in the ordinary course? A. Yes.
3059. Q. And went on stoping? A. There was no stoping in that portion of the mine after the cavern, cavity or crack—whichever you will call it—had been filled up.
3060. Q. Was there any stoping done south of the Kintore shaft up to June? A. Yes.
3061. Q. On what pillars? A. On the south side of A2 on the 500 level.
3062. Q. Was any stoping done on the 400-level? A. No.
3063. Q. Only a drive put through the pillar going towards the south? A. Yes; after that drive had been put through to the south the men took out four cuts between the South and Central.
3064. Q. Between the old south shaft and the Central? A. No; in the A4 stope, the men put this drive through and holed into the South Mine.
3065. Q. How much stoping was done in the A4 on the 400 level? A. About four sets.
3066. Q. Two along and two above? A. Two along on the sill and two over it.
3067. Q. That was the only stoping done on the 400 level south of the Kintore shaft? A. South of the old main shaft; 200 or 300 feet away from where we are talking now about the Kintore shaft.
3068. Q. What stoping was done, either in the stopes or ore pillars, after the June creep, south of the main cross-cut? A. There was this four-set piece taken out on the 400 level, that is all.
3069. Q. Do you remember the date when you went into the South Mine;—could you fix it in any way? A. I could if I had my log-book. If I take guess work, the creep occurred in June, and we were a month or five weeks filling the crack, cavity, or cavern, and the men were another month putting the drive through the pillar, and a fortnight or three weeks after the drive was holed through from the Central. The day after I visited the South, in company with Mr. Dawe.
3070. Q. Somewhere about the end of August? A. Yes.
3071. Q. You found all the South Mine pillars standing up? A. Yes, they were.
3072. Q. No crushing, or anything of that sort? A. Nothing out of the ordinary.
3073. Q. Are you certain that these sets were not filled? A. Quite certain. We went up three or four floors.
3074. Q. Were the sets adjoining the gangway filled with mullock? A. Two or three on the sill floor. We went right along the gangway. Some of them were filled along the gangway.
3075. Q. To what distance from the boundary were they filled, when you first enter the stope? A. The first timber away from the boundary from where our drive broke through would be about three sets.
3076. Q. Where you broke through, that is the gangway? A. It was not filled.
3077. Q. Giving in these three sets, will you say the others were not filled right up to the top? A. I am perfectly satisfied they were not.
3078. Q. Could you see all through the solids? A. There were no solids in.
3079. Q. Did you go up on a solid? A. I went up on the sets from the sill to the third floor.
3080. Q. Did you go to the top of the mullock? A. There was no mullock there—three sets up there was no mullock at all.
3081. Q. Do you say that positively? A. Yes.
3082. Q. Who was with you? A. Mr. Dawe.
3083. Q. Did you see a cage there, or provision made for a cage? A. I saw a cage on the sill floor.
3084. Q. Did there appear to be any provision for hoisting? A. Yes; runners were in, and every provision for attaching it for hoisting.
3085. Q. Could you see a winch? A. No; I did not see it.
3086. Q. You know the pillar and stope system—I think the practice is to leave the pillars standing until you get the stopes worked out at your level below? A. I do not think we have worked them from level to level, but that is the system.
3087. Q. In working out the ground between the pillars—when the stope is completed you do not fill all the sets? A. We leave a gangway each side. One full set each side.
3088. Q. Since the discovery of this cavern—cavity or crack—has any work of stoping been done on the 500 level, between the old south shaft and the south boundary, since the June creep? A. Nothing has been done there.
3089. Q. Some has been done since 1901? A. There has been some done in Mr. Rowe's time, and since Mr. Dawe has been underground manager.
3090. Q. Has any been done on the 600 level, between the Kintore shaft and the south boundary, since 1901? A. Yes.
3091. Q. Both on the pillars? A. Only in stopes.

3092. *Q.* Was the whole of the work in the Central Mine, between the South Mine and the Kintore shaft, to the south boundary—was it all square-set work between the 400 and 600 levels? *A.* Yes.
3093. *Q.* No open stoping? *A.* Square sets on the gangway—we usually take two square sets on each gangway.
3094. *Q.* Lately machine-drills have been discarded in the Central Mine;—are you using any now? *A.* Yes.
3095. *Q.* In the south end of the mine? *A.* They are not required there.
3096. *Q.* The vibration from a machine drilled shot is much greater? *A.* As far as I know, the vibration had nothing to do with the stoppage of the machines.
3097. *Q.* The vibration from shots fired in machine-drilled holes is usually much greater than the shots fired in hand-drilled holes;—the charge is much heavier? *A.* Yes.
3098. *Q.* They were knocked off and put into the tool house? *A.* Some of them.
3099. *Q.* And none of them worked at that end of the mine? *A.* No.
3100. *Mr. Wise.] Q.* From your experience, mullockers often have to go into dangerous places? *A.* They never have to go alone.
3101. *Q.* Do you think a practical miner should be in charge of a gang of mullockers? *A.* They are in charge of practical miners. They are in charge of the shift boss.
3102. *Q.* Do you know the slide above B 5? *A.* Yes.
3103. *Q.* How long before the accident were you there? *A.* I could not say. I do not go there unless men are working there. If I saw a light there I would go to see who was working there.
3104. *Q.* What was the roadway like? *A.* It was mullocked up so that you would have to go on your hands and knees.
3105. *Q.* Was there any necessity for men to lie down to poke the chute? *A.* When I was there I saw mullockers running the chute in a kneeling position.
3106. *Mr. Hall.] Q.* As far as you know, everything in the mine was safe and sound before the creep? *A.* Yes.

[Witness left.]

Edward Charles Anderson, called in, sworn, and examined:—

3107. *Commissioner.] Q.* What is your full name? *A.* Edward Charles Anderson.
3108. *Q.* You are one of the shift bosses in the Central Mine? *A.* Yes.
3109. *Q.* What experience have you had? *A.* Twenty-seven years.
3110. *Q.* What experience have you had in Broken Hill? *A.* About eighteen years, on and off.
3111. *Q.* And before that? *A.* In South Australia and Queensland.
3112. *Q.* How long have you worked in the Central Mine? *A.* Between six and seven years.
3113. *Q.* Have you ever worked in the South Mine? *A.* Never.
3114. *Q.* You remember the June creep? *A.* Yes.
3115. *Q.* What was the opinion formed at the time as to the cause of the June creep;—I suppose you talked the matter over with different people? *A.* The cause of it was, no doubt, that she went underneath from the south boundary. Some of the stuff must have gone away to cause it.
3116. *Q.* At what level? *A.* At the 400 level.
3117. *Q.* You remember a cavity was left at the old South shaft? *A.* Yes.
3118. *Q.* Were you down that at all? *A.* Yes, to the winze.
3119. *Q.* And very soon after the June creep the winze was put down between the south shaft and the south boundary? *A.* Yes.
3120. *Q.* And I believe the winze terminated in a cavity? *A.* Yes.
3121. *Q.* Were you down that cavity? *A.* Yes.
3122. *Q.* And how did it appear to you? *A.* Where we bottomed on the cavity there were two rocks jammed together, and the crack extended east on the foot-wall. We went through, and we came on to some old timber underneath and a few sets partly filled.
3123. *Q.* What was done to them? *A.* They were filled from the winze and filled tight.
3124. *Q.* Do you think you filled up the whole of the cavity? *A.* No; only filled up above the sets.
3125. *Q.* Was it run down the chute or shovelled into the sets? *A.* Yes, and this slide formed into a chute into the cavity and run down the winze to the cavity.
3126. *Q.* Would that fill it up? *A.* Provided she did not get choked; but every precaution was taken that she should not choke.
3127. *Q.* Have you any idea how many loads of mullock were put in? *A.* I could not say.
3128. *Q.* What direction was it from the winze? *A.* It was going south-east.
3129. *Q.* I suppose you could form no conclusion as to the size of it? *A.* No; for a time a rush of wind came up, so much so that you could not carry a light, and we could have no light there at all.
3130. *Q.* The wind came from the south-east? *A.* Yes; it came up from the cavity.
3131. *Q.* Do you remember the drive being put in towards the south? *A.* Yes.
3132. *Q.* Were you through on to the South Mine? *A.* Yes.
3133. *Q.* What did you see there? *A.* We went in, and I saw the timbers in the South square sets. There was no mullock except a set here and there. We saw a cage going further south—that is as far as I went.
3134. *Q.* You did not go up in the timbers at all? *A.* No; it was six or seven sets up in the timbers.
3135. *Q.* How was it standing? *A.* The timbers were standing “all ways.”
3136. *Q.* You were through the stopes in the Central before the accident? *A.* Yes, twice a shift.
3137. *Q.* Did you hear the timbers talking? *A.* No; only in the ordinary way. I heard no complaints from anybody.
3138. *Q.* Nothing to lead you to suppose that an accident was likely to occur? *A.* No.
3139. *Mr. Hall.] Q.* This cavity you spoke of was running south-east from the winze? *A.* Yes.
3140. *Q.* I understand you did not descend into that cavity? *A.* No, not to any distance.
3141. *Q.* You know B 5 chute? *A.* Yes.
3142. *Q.* Did your work lead you to it prior to the accident? *A.* Yes; pretty often very close to it.
3143. *Q.* Did you hear any creaking or groaning of the timber? *A.* No, nothing whatever.
3144. *Q.* Do you know the gangway that leads to the chute in B 5? *A.* Yes.
3145. *Q.* Did you see that before the accident in October? *A.* Yes.

Witness—E. C. Anderson, 20 March, 1903.

3146. *Q.* How did it appear then as to safety and stability? *A.* It seemed all right then.
3147. *Q.* When you went down that cavity—where you could not carry a naked light—from what direction did this wind come? *A.* From the south.
3148. *Q.* Was it caused by the running of the cage in the South Mine? *A.* I could not say where it could be; it could be nothing else but the South cage.
3149. *Q.* It used to come at intervals? *A.* It could not come from the cage in the Central, because she was partly filled there. There might have been a crevice somewhere, but that is my opinion. We got the electric light put on there on account of not being able to carry a candle.
3150. *Q.* Did it go straight down, or did it underlie? *A.* Yes, underlying to the south-east.
3151. *Q.* Could you see whether it went in the South Mine or not? *A.* No.
3152. *Mr. Edwards.] Q.* You cannot say that this cavity, caused by the June creep, was in the South Mine or the Central? *A.* The cavity extended south.
3153. *Q.* Can you say positively whether the cavity was in the South or Central Mine? *A.* I could not say. It was extending in that direction.
3154. *Q.* You have a big vug in your mine? *A.* Not on the 500 or 400 levels.
3155. *Q.* Is it on the 600 level? *A.* Yes.
3156. *Q.* A big one? *A.* Yes, a fair size. I do not know much about the 600-foot level.
3157. *Q.* It is vuggy ground;—is there one on the 700 level opened out by the drive? *A.* I could not say much about the 700 level.
3158. *Q.* Could a creep of this sort be occasioned by a vug? *A.* I do not think so.
3159. *Q.* Do you know much about vugs? *A.* Yes.
3160. *Q.* You do not think the vugs in the Central Mine would cause this creep? *A.* No.
3161. *Mr. Wise.] Q.* When did you last go to look at this B 5 chute? *A.* About a couple of days or so before the creep.
3162. *Q.* How did you get to it? *A.* Crawled about six or eight sets, and then run it, partly stooping.
3163. *Q.* And when you came out, how did you get out? *A.* Backwards.
3164. *Q.* From your experience of the Central Mine, mullockers are often sent into dangerous places? *A.* No they are not. Miners are always sent with them; the miners are there to secure the ground and see everything is safe.
3165. *Q.* Do you think it is advisable that a practical man should be in charge? *A.* Yes; where danger exists.
3166. *Q.* Have you ever seen either of the mine inspectors at the B 5 chute? *A.* No; they have been through the stope close to it.
3167. *Mr. Hall.] Q.* That cavity on the 400 level, it runs towards the south? *A.* Yes.
3168. *Q.* In the 500 level, below that place in the Central Mine, was there any indication of the hole being there? *A.* No; she was mullocked up tight.
3169. *Q.* It did not appear again at the 500 in the Central? *A.* No.
3170. *Commissioner.] Q.* Have you ever searched for it under the 400 level? *A.* She was all tightly mullocked up. There is no way of getting underneath to see.

[Witness left.]

Herman Heberle, called in, sworn, and examined:—

3171. *Commissioner.] Q.* What is your full name? *A.* Herman Heberle.
3172. *Q.* You are a miner? *A.* Yes.
3173. *Q.* What experience have you had? *A.* About sixteen years.
3174. *Q.* What mines have you worked at in Broken Hill? *A.* The Proprietary, Junction, South, Central, and Block 10.
3175. *Q.* How long have you worked in the Central Mine? *A.* About twelve months.
3176. *Q.* You were in charge of the tool-box on the 500 level? *A.* Yes.
3177. *Q.* Do you remember the time of the creep in October? *A.* I left the tool-box at 12 o'clock midnight.
3178. *Q.* Prior to going away did you notice any talking in the timbers? *A.* None whatever.
3179. *Q.* Do you know Lyons? *A.* I do.
3180. *Q.* Have you had any conversation with him relative to the chute? *A.* No; never had any conversation.
3181. *Q.* Did he ever complain that the chute was not safe? *A.* No.
3182. *Q.* Did he ever complain about movements in the timber? *A.* I have never heard any complaint from any man who was there on that shift.
3183. *Q.* You never heard any yourself? *A.* Nothing.
3184. *Mr. Hall.] Q.* Was the chute in good working condition, as far as you know? *A.* Yes.
3185. *Q.* You have had experience in a good many mines;—is the Central Mine a well managed mine? *A.* I have never seen a better managed mine.
3186. *Q.* When this chute was running you could hear it distinctly from where you were? *A.* Yes.
3187. *Q.* Was there any extraordinary creaking while running? *A.* Not any more than any other chute that I have heard in my life. There never was a chute which run without making a rumbling noise.
3188. *Q.* There was nothing extraordinary with regard to this B 5 chute? *A.* Nothing whatever.
3189. *Q.* What mine were you working in immediately before you came to the Central? *A.* In the South Mine.
3190. *Q.* Were you there when the accident occurred through which Bennetta and others lost their lives? *A.* Yes.
3191. *Q.* You formed one of the party that took some of these men out? *A.* Yes.
3192. *Q.* Where were they working when the accident occurred? *A.* Just below the 500 level.
3193. *Q.* Do you know what they were doing? *A.* I was not there; I believe they were trying to open a stope.
3194. *Q.* Were you in the South Mine when any other creep occurred? *A.* No.
3195. *Mr. Wise.] Q.* Have you ever seen a creep occur that would not give warning? *A.* I do not know; I have seen levels collapse without any warning. In square sets they do not give any warning.

[Witness left.]

Ferdinand

Ferdinand Schutz, called in, sworn, and examined:—

3196. *Commissioner.*] *Q.* What is your full name? *A.* Ferdinand Schutz.
 3197. *Q.* You are a miner? *A.* Yes.
 3198. *Q.* What experience have you had? *A.* Six years; all in Broken Hill.
 3199. *Q.* You were working in the Central Mine shortly after the June creep? *A.* Yes.
 3200. *Q.* You were working on the 400 level? *A.* Yes; stoping sulphide at the block 10 boundary.
 3201. *Q.* Were you afterwards doing work near the South boundary? *A.* Yes; on the south boundary just before the last creep.
 3202. *Q.* What stope were you working in? *A.* I do not know the name of it. I was on the afternoon shift, and knocked off at 12 midnight, before the creep.
 3203. *Q.* Did you see or hear any movement amongst the timber? *A.* No; not a sign or anything.
 3204. *Q.* Did you hear the sound of any fall? *A.* No; nothing more than the usual little falls where rats might be knocking loose bits down.
 3205. *Q.* Do you know anything of a winze which was sunk near the South Mine boundary? *A.* Yes; it was sunk before I went to work there.
 3206. *Q.* Did you see anything dangerous in the ground where you were working? *A.* No, nothing.
 3207. *Mr. Hall.*] *Q.* Was there anything at all to give you any idea that a creep was imminent or the ground dangerous? *A.* No.
 3208. *Q.* Is the Central Mine well mullocked up close to the miners? *A.* Yes.
 3209. *Q.* Did you complain to any of the bosses of the mine at any time? *A.* No.
 3210. *Mr. Edwards.*] *Q.* What level were you working on? *A.* The 400.
 3211. *Q.* You do not know how far from the south boundary? *A.* I could not tell exactly; 20 or 25 feet.
 3212. *Q.* Everything was standing there solid then? *A.* Yes.
 3213. *Q.* Solid between you and the south boundary? *A.* Except the drive close to where we were working.
 3214. *Q.* How high was the stope? *A.* Two sets.
 3215. *Commissioner.*] *Q.* Were you on the sill floor or above? *A.* On the sill floor.

[Witness left.]

Thomas Brokenshire, called in, sworn, and examined:—

3216. *Commissioner.*] *Q.* What is your name in full? *A.* Thomas Brokenshire.
 3217. *Q.* You are a miner—of how many years' experience? *A.* Over twenty years.
 3218. *Q.* How long have you worked in Broken Hill? *A.* About sixteen or seventeen years.
 3219. *Q.* Previously working where? *A.* In the Junction, South Mine, and the Central.
 3220. *Q.* But before coming here? *A.* In South Australia.
 3221. *Q.* How long have you worked in the Central Mine? *A.* Over twelve years.
 3222. *Q.* Do you remember the time of the June creep? *A.* I was there before the creep.
 3223. *Q.* What were you doing then? *A.* I was filling up with mullock a big place down the winze.
 3224. *Q.* The winze on the 400 level near the south boundary? *A.* Yes.
 3225. *Q.* How many shifts were you working? *A.* Two shifts.
 3226. *Q.* Did you go down this winze at all? *A.* Yes.
 3227. *Q.* To the bottom? *A.* No.
 3228. *Q.* Could you give me any idea as to the size of the cavity? *A.* No, I could not.
 3229. *Q.* What direction did it seem to be going in from the bottom of the winze? *A.* It seemed to be towards the south.
 3230. *Q.* How long did it take you to fill it up working two shifts? *A.* They had been working on it before I was employed there.
 3231. *Q.* About how long before the last creep was this finished? *A.* About five weeks, I suppose. I then left that part of the mine, and I went up on top.
 3232. *Q.* Did anything lead you to believe anything was dangerous? *A.* No; if I was frightened of anything I should not have been there.
 3233. *Q.* Have you ever worked near the central boundary in the South Mine? *A.* Yes; right on the boundary at the 400 level.
 3234. *Q.* Was it square set system you worked there? *A.* Yes.
 3235. *Q.* And what system of mullocking was followed? *A.* Tip the stuff in and let it run down. Where it required shovelling it would be shovelled.
 3236. *Q.* Was the ground mullocked up as far as you saw after the miners? *A.* Yes.
 3237. *Q.* You have seen work in the Central since—was the same system followed in the South Mine as in the Central? *A.* When I was speaking just now I was speaking of the Central Mine, not the South. I was working for the Central on the boundary.
 3238. *Q.* Have you ever worked on the south side between the two mines? *A.* I worked on the Central before the creep, not on the south side.
 3239. *Mr. Hall.*] *Q.* While in the Central Mine, before the creep, was there anything at all to indicate that a fall was likely to occur? *A.* No.
 3240. *Q.* When you went down the winze and into the cavity some mullock had been put into the cavity? *A.* Yes.
 3241. *Q.* Which way did it make? *A.* Leading towards the South, I should say.
 3242. *Q.* Have you been at the 500 level in the Central immediately below where the winze was sunk on 400 level? *A.* Not immediately underneath. Not lately.
 3243. *Q.* Were you there any time before the October creep? *A.* I was there when the stope was started first and came back to the 500.
 3244. *Q.* Was there, so far as you could see, any sign of any such cavity existing at the 500 level in the Central Mine? *A.* No.
 3245. *Q.* You said for your own part you did not see anything dangerous in your work or you would not have undertaken it? *A.* That is so.

3246.

Witness—T. Brokenshire, 20 March, 1903.

3246. *Mr. Edwards.*] Q. When you went to the 500 level you went when the stope was first started? A. Yes.
 3247. Q. As to the cavity, it was all mullocked up and everything tight and safe? A. Yes, I was there at the last shift that filled it up.
 3248. Q. You cannot see where that went to? A. No.

[Witness left.]

Richard Clogg, called in, sworn, and examined:—

3249. *Commissioner.*] Q. What is your full name? A. Richard Clogg.
 3250. Q. Your experience as a miner? A. About ten years.
 3251. Q. How many in Broken Hill? A. All that time;—I have done a little down below, but not much.
 3252. Q. You have been employed in the Central Mine? A. Yes.
 3253. Q. How long? A. About eight or nine months this time.
 3254. Q. Were you working in the Central Mine about the time of the June creep? A. No.
 3255. Q. More recently? A. Yes. I was on the 500 level in the A 4 stope about the time of the October creep.
 3256. Q. Did you work right up to the time the movement occurred? A. Yes. I was on day shift, and knocked off at 4 o'clock.
 3257. Q. You were only a short distance from the South boundary? A. Yes.
 3258. Q. When you were working there did you notice anything to anticipate danger? A. Nothing at all.
 3259. Q. You heard no movement or anything amongst the timber? A. No, nothing whatever. It was as safe as it always was as far as I could make out.
 3260. Q. How was the mullocking carried as far as you saw? A. As close as they could mullock it.
 3261. Q. Did you or any of your mates complain and say it was thought dangerous? A. No.
 3262. *Mr. Hall.*] Q. Do you know the winze near the South boundary on the 400-foot level? A. Yes.
 3263. Q. You helped to sink that winze;—do you remember what depth it went down to? A. Somewhere about 45 feet, as near as I could judge.
 3264. Q. I think you bottomed on to some timber of an old stope? A. Yes.
 3265. Q. Did you get down through this timber? A. Not until we mullocked it up level.
 3266. Q. How long after you completed that winze? A. A few days.
 3267. Q. What did you find? A. We went down about 15 feet towards the South Mine and we found a big cavity running directly towards the South Mine.
 3268. Q. Could you see the edges or boundaries of the cavity at all? A. No, only a big cavity there.
 3269. Q. I understand you could not see the bottom of the cavity, you could only see where it was leading to. Do you know if an attempt was made to mullock it up from the Central side? A. Yes.
 3270. Q. Have you worked on the 500-foot level on the Central Mine near the South Mine boundary? A. Yes.
 3271. Q. Do you know of any big cavity corresponding on the 500 level with that which you saw on the 400 level? A. None whatever.
 3272. *Mr. Edwards.*] Q. You could not see to the bottom of the cavity, it might have stoped? A. I could not see to the bottom.
 3273. Q. At the 500 level you would be somewhere underneath where you were stoping? A. No.
 3274. Q. When the cavity was all mullocked up it was left safe? A. As far as I know.
 3275. Q. It was mullocked right up to the top? A. Yes.
 3276. Q. How long were you there? A. About a fortnight.
 3277. Q. Did you fill it in that time? A. Partly.
 3278. Q. You were taken off and sent down to the 500 level? A. Yes.
 3279. *Commissioner.*] Q. I believe this winze was put down for the purpose of exploring the cavity found at the old south shaft? A. Yes.
 3280. Q. Was there anything to connect the cavity you saw at the winze with the cavity at the old south shaft? A. I could not say: we mullocked it up.
 3281. Q. There were timbers on one side;—were they towards the old south shaft—those that were standing? A. Yes, towards the old south shaft.
 3282. Q. They first found that cavity at the bottom of the old south shaft and to further explore this cavity the winze was put down—but, can you say if there is anything to connect the cavity with the cavity at the bottom of the old south shaft? A. Not that I could see.
 3283. *Mr. Hall.*] Q. When you went into this cavity at the bottom of the winze it was partly filled with mullock, and could you say if it had the appearance of having had mullock and it had run out? A. Yes.

[Witness left.]

Thomas Eva Nankervis, called in, sworn, and examined:—

3284. *Commissioner.*] Q. What is your name? A. Thomas Eva Nankervis.
 3285. Q. You are a miner? A. Yes.
 3286. Q. How many years' experience have you had? A. About twenty years.
 3287. Q. How long have you worked in Broken Hill? A. Since about 1886.
 3288. Q. Previously, where were you working? A. At Wallaroo and Moonta mines.
 3289. Q. You have worked in the Central and other mines? A. Yes, nearly all of them.
 3290. Q. In the South Mine? A. Yes.
 3291. Q. How long is it since you worked there? A. About 1897 I should think.
 3292. Q. Did you work in the higher levels in the South Mine? A. I had a short time about the 400 level.
 3293. Q. What system of mullocking did they carry on in those days? A. Pretty much the same as now.
 3294. Q. What particular part were you working in? A. Close to the line of the creep that killed a lot of men, somewhere near where the accident happened.
 3295. Q. How long have you worked in the Central Mine? A. Since last August.
 3296. Q. What particular work were you doing there? A. Stoping.

3297.

3297. *Q.* Do you remember a winze being put down at the boundary on the 400 level? *A.* I saw a light there, and they told me it was a winze.
3298. *Q.* You worked up to the creep? *A.* The day prior to the creep—on day shift.
3299. *Q.* Did you see anything in the workings that would lead you to expect any danger? *A.* No, I never had any idea that such would occur.
3300. *Q.* From your experience, was everything done in that mine that should be done for safety? *A.* Yes.
3301. *Q.* Was the mullocking kept right up, and was there sufficient in the stopes? *A.* Yes.
3302. *Q.* Have you any improvement to suggest in the way of mullocking? *A.* I do not know of anything to beat the old way. That is my experience after twenty years.
3303. *Mr. Hall.*] *Q.* Had you any reason to make any complaint to any of the shift bosses about anything being dangerous? *A.* Nothing whatever.
3304. *Q.* As a practical miner you are quite satisfied with the condition of the ground there and the means taken to secure it? *A.* Yes.
3305. *Mr. Edwards.*] *Q.* Do you know how far back from the south boundary you were at the time of the creep? *A.* I was on the 400 level, just at the boundary. I was stoping.
3306. *Q.* What was the size of that stope? *A.* Two sets wide.
3307. *Q.* You were using hand-drills there? *A.* Yes.
3308. *Q.* Machine-drills would blow the timber about? *A.* I do not think it was safe for machine-drills.
3309. *Q.* The vibration would cause falls of ground? *A.* The ground was hardly hard enough for machine-drills. It could be worked easier with hand-drills.
3310. *Mr. Wise.*] *Q.* During your experience at Broken Hill, can you say if mullockers have to go into dangerous places? *A.* Not so far as I have seen.
3311. *Q.* Have you had any experience of creeps? *A.* I was in the Junction North when one happened.
3312. *Q.* Did it give any warning? *A.* No, not that I know of. I was working in the stope there, and it came all of a sudden.
3313. *Commissioner.*] *Q.* What was the cause of that Junction creep? *A.* I could not say. I never heard.
3314. *Q.* Is it usual to use rock-drills when you are working square sets? *A.* No, not within the timbers.
3315. *Q.* If the ground is heavy, you have to keep the timbers close up;—would it be usual to use rock-drills there? *A.* I do not think I should use them there.
3316. *Q.* They might use them in open stopes? *A.* Yes.

[Witness left.]

[The Commission adjourned till Monday, 23rd March, 1903, at 10-30 a.m.]

MONDAY, 23 MARCH, 1903.

[The Royal Commission sat at 10-30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited) Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-Mining Company (No Liability).

Mr. W. J. Wise, Secretary Barrier Branch Amalgamated Miners' Association, appeared to represent that Association.

Mr. James Hebbard, Manager of the Central Mine, produced and handed in the following plans:—
(1) Longitudinal Sections taken on lines 30 feet apart, commencing on the foot-wall, Central Mine (*Exhibit No. 19*); (2) Additional Cross Section, portion of *Exhibit No. 18* (*Exhibit No. 20*); (3) Projected Longitudinal Sections showing at lines A and B what was known of the creep of June up to the time of the October creep (*Exhibit No. 21*).

Frederick Dawe, called in, sworn, and examined:—

3317. *Commissioner.*] *Q.* What is your name? *A.* Frederick Dawe.
3318. *Q.* You are underground Manager of the Central Mine? *A.* Yes.
3319. *Q.* How long have you been in that position? *A.* About twelve months. Previous to that I was night foreman for two years, and before that again I was shift boss for four years.
3320. *Q.* Is that the whole of your experience in Broken Hill? *A.* I have been in Broken Hill fourteen years on the 21st June next.
3321. *Q.* Have you been at mining all that time? *A.* Yes.
3322. *Q.* Had you any experience before that? *A.* Yes, about twelve years' in South Australia, Queensland, and in the old country.
3323. *Q.* What is the first creep you remember in any mine you were engaged in? *A.* I was engaged with the one in the Central Mine in 1896—that was north of the Kintore shaft. That was before the Kintore shaft was sunk.
3324. *Q.* On the boundary? *A.* No, in the old workings—the first workings ever done in connection with the sulphide bodies—between the 400 and 500 levels.
3325. *Q.* Have you any knowledge of the reason of that one? *A.* We could only see the hanging wall had given way.
3326. *Q.* Were you mullocking in those days? *A.* Yes, to a certain extent—from the surface. We used to send it down the old shaft at that time.
3327. *Q.* The pressure from the hanging wall caused the creep? *A.* Yes.

3328.

Witness—F. Dawe, 23 March, 1903.

3328. *Q.* What was the next creep you had experience of? *A.* The one in June last.
3329. *Q.* Where did the first signs show? *A.* On the 400-foot level. The night boss—Ellis—came up and reported it to me, that there was a movement somewhere near the south shaft. I then sent word to Mr. Hebbard. We went down. We went from the surface to the 200-foot level, and from there to the 300-foot level, and we went down the ladder-way, and to the 400-foot level—the bottom had gone away. We went back to the 300 foot level, and down to the 400-foot level by the old main shaft. We came across from the old main shaft in front of the old main drive, and there found the cavity.
3330. *Q.* Where did the cavity commence? *A.* From the bottom of the old south shaft, in a southerly direction.
3331. *Q.* How far could you trace it? *A.* We started to tip mullock into it from the surface, and we filled it up as far as we could.
3332. *Q.* What size did it appear to be? *A.* About 8 feet or 10 feet below the old shaft. The bottom of the shaft was level with the bottom of the drive.
3333. *Q.* Did it appear to increase in depth as it went south? *A.* It continued to run south. There was a drive alongside; but it never interfered with the drive running north or south. It went south from the bottom of the drive. It went away on the same level.
3334. *Q.* I understand you filled it up with skimps? *A.* We had men filling—we could not say how much was put into it. The men were there working several days, and down at the bottom, where it required it, the men shovelled it in as far as they could until I withdrew them out of it. We filled it as tight as we could, but there was still a cavity at the bottom. I would not let the men go into the cavity. When we filled that up we went further south, somewhere about 40 or 45 feet, and sank a winze.
3335. *Q.* What distance is it from the old south shaft to the south boundary? *A.* About 80 feet.
3336. *Q.* So you went about half-way? *A.* Yes, about half-way.
3337. *Q.* Assuming where you ought to strike the cavity? *A.* We thought we might have struck it somewhere about 35 or 40 feet. When we put the winze down we found the standing timber which we had left some years ago, and the truck was there that we last mullocked with.
3338. *Q.* Did you find the cavity? *A.* Yes; going to the south from the bottom of the winze.
3339. *Q.* Had that any connection with the cavity at the bottom of the south shaft? *A.* I could not say that. It was running from the bottom of the winze.
3340. *Q.* You went into the cavity? *A.* Yes. We found a big cavity; I could not say how big. I did not go down as far as King did. We had an electric light on about 80 feet of cable from the top of the winze, where it was fastened to. We could not keep a candle alight down it on account of the draft coming through it, apparently caused by the working of the cage.
3341. *Q.* What cage? *A.* I could not say, but I do not think it possible for our cages to throw the draft in the way it came through.
3342. *Q.* You had this electric light 40 feet from the bottom? *A.* Yes; 40 feet below the winze.
3343. *Q.* Could you see the bottom? *A.* No, we could not see any bottom whatever.
3344. *Q.* What were the dimensions of it;—could you see the size of it? *A.* You could see the top of it as you came out from the bottom of the winze, but the depth no man ever knew. We filled it up—poured mullock into it. I could not tell you how much. We filled it till it choked itself. I have no idea of the number of trucks put into it.
3345. *Q.* Could you get any idea of the width? *A.* No; it might have been from 12 to 15 feet wide. All the timber was standing there, and the mullock had run out of the standing sets.
3346. *Q.* Had the timbers moved in any way? *A.* No, not in any way at all.
3347. *Q.* That was on the 400-foot level? *A.* Yes.
3348. *Q.* Did you make any examination under the 400-foot level? *A.* Yes; on the 500 foot level. There had been no indication of any cavity. You could not get back to the boundary there for over three years. It was bottomed out, and it had not run to the boundary. This was left in Mr. Rowe's time, and it was thoroughly filled up. There were no means whatever of getting underneath. It was worked out, and completed with mullock.
3349. *Q.* You saw a good deal of this work done? *A.* Yes.
3350. *Q.* Were there no gangways left? *A.* The only gangway left there was the northern gangway to the A 4 stope, running east and west.
3351. *Q.* How far would that be to the boundary? *A.* About 70 or 75 feet.
3352. *Q.* The whole of the gangways underneath, between the 400 and 500 levels, were filled? *A.* Before this one, all the others were filled.
3353. *Q.* Did you come to any conclusion as to what caused this cavity? *A.* Some days after—I believe it was the very next day—we were examining the 400-foot level. We went to Mr. Mayne. He knew nothing whatever about it. We investigated at the 500 level, and when we got there we could get no further. It was apparently unknown to Mr. Mayne at that time.
3354. *Q.* You know the accident which occurred in May previously, when the unfortunate men, Bennetta and party, were killed;—was it anywhere in that locality that you tried to get up? *A.* The same place, apparently; it had collapsed there in June.
3355. *Q.* You found another collapse there in June? *A.* Yes.
3356. *Q.* And your conclusion was that this had gone to the boundary? *A.* It went at the 500 level, and that was the cause of the cavity which we discovered at the 400 level.
3357. *Q.* When did Mr. Rowe give up the management of the mine? *A.* About twelve months ago.
3358. *Q.* Mr. Rowe was taken ill about the middle of January last year? *A.* He had the superintendence of the work after that. I used to come and go to his house, and it was his custom to instruct me what to do. Then he went to Adelaide, and was back about a week, when he died.
3359. *Q.* All the filling between the 400 and 500 levels was under Mr. Rowe's supervision? *A.* Yes; all of it.
3360. *Q.* There have been other movements in the Central? *A.* Yes; in October last.
3361. *Q.* But on the other boundary? *A.* On the 10 boundary; there is a slight movement there.
3362. *Q.* All the movements, except the one you mention, have been on the boundary? *A.* Yes.
3363. *Q.* In working the boundaries between two mines, as far as your experience goes, is it done by mutual agreement of the companies? *A.* I could not say; but I know there are instructions given to the shift bosses

- bosses that we are not to encroach any further than within 20 feet of Block 10 or the South Mines. What arrangements may have been made between the companies I could not say, but those were our instructions.
3364. *Q.* Were they carried out? *A.* It was carried out in the Central Mine. That was, until they took away their portion, and then Mr. Rowe turned in and took out his portion.
3365. *Q.* As far as you know, there is no regulation or anything like that to say how these boundaries should be worked? *A.* There is nothing that I know of.
3366. *Q.* Nothing to prevent the mines working up to the boundary of another mine? *A.* Yes, that is so.
3367. *Q.* Do you not, as a practical miner, think that some legislation should be enacted to provide for such as this? *A.* It all depends upon the class of ground. At the 600 level, what was taken out there would have been of little support to the boundary.
3368. *Q.* Was it friable? *A.* Yes, on both sides of the boundary, both Central and South.
3369. *Q.* On the south boundary it would not matter so much—the other party taking up to the boundary; the lode goes pretty well at right angles through the boundary, and it would not weaken the lode to any great extent? *A.* If the one party has worked out when the next party comes up they would have to “nurse the baby,” as the saying is.
3370. *Q.* Not to the same extent as if the lode came through at an angle;—there is a difference between your boundary and the South and Block 10 boundary;—the boundary with Block 10 would be very much more difficult to manage than the South boundary? *A.* I do not think it matters much which way it runs, provided they work it proper on both sides.
3371. *Q.* It has been stated that certain pillars were mined on the boundary;—can you tell me what has been done on the boundary between the Kintore shaft and the boundary, or at A 3 pillar? *A.* There has been a little done there—very little.
3372. *Q.* Can you say what had been done since your management of the mine? *A.* All that has been done on the pillars since I have been there is two sets wide and two sets high have been taken off A 3 pillar on the south side. That is the whole of the work.
3373. *Q.* What size was it at that time? *A.* 50 feet wide.
3374. *Q.* Does it run from wall to wall? *A.* The work was done on the eastern wall some time back. That was done in Mr. Rowe’s time. What was standing on the sill floor there was about 40 square sets at the A 3 pillar at the 500 level.
3375. *Q.* This one, I take it, went right from your highest level down to the 700 level? *A.* Yes; that is the highest.
3376. *Q.* Did this mining weaken the pillar at all? *A.* No; none whatever.
3377. *Q.* Was any pillar left at A 4, or was it stoped? *A.* That A 4 was stoped.
3378. *Q.* Now, coming to the October creep;—you were constantly through the ground? *A.* Every day.
3379. *Q.* How did it seem to you? *A.* It seemed all right the day previous to the creep. There was nothing to alarm anybody or to cause me to withdraw the men. If there had been the slightest sign of danger the men would not have been left there.
3380. *Q.* You know B 5? *A.* Yes; well.
3381. *Q.* Have you been up to the B 5 chute? *A.* Two days before the creep I was there in the slide.
3382. *Q.* How did it appear? *A.* It seemed just as it did for years past.
3383. *Q.* Was it safe for the men to work in? *A.* Quite safe.
3384. *Q.* And you have made a careful examination since the creep;—where were you at the time of the creep? *A.* I was at home, and I was sent for at about half-past 3. I went and looked for a place I thought it was possible to get the men out.
3385. *Q.* You could not get at BC at that time? *A.* No.
3386. *Q.* You know Lyons? *A.* Yes.
3387. *Q.* Has he made any complaint to you at any time? *A.* He never made any remarks to me. I saw him every day for a week previous. I passed through that very level with Mr. Milne one day during the week, and he made no remarks to me whatever.
3388. *Q.* From your experience, what conclusion do you come to as to the cause of the October creep? *A.* Well, the conclusion I have come to is that there must have been a big cavity in the South Mine, and probably was a cavity at the back from the old original creeps—they may have fallen away and caused it. There was a creep right on the boundary ten years ago or more.
3389. *Q.* Supposing a cavity was there, how did it cause the creep? *A.* By the filling coming from the back, and would naturally crush all the timbers, and set everything on the move.
3390. *Q.* You have heard the evidence of the timbermen, that they heard a second fall? *A.* Yes. From the first one to the second one there must have been—from what they told me when I reached the 600 level—some considerable time. They said, “If you had been here two minutes sooner, you would have been right in the thick of it.” The drive was full of dust, and they were lying stretched out on the bottom of the drive. I heard no fall myself.
3391. *Q.* Do you think it possible for the first movement to have been caused from the south by the higher levels crushing through? *A.* There is no doubt it might. A fall from the higher backs might have caused the bottom to give way. A certain amount of mullock had come away.
3392. *Q.* Do you know anything about the workings above the 400-foot level? *A.* I know nothing about the 400-foot level. I know every other inch of the mine.
3393. *Q.* You have seen the movement on the surface;—was that an indication that there had been a heavy fall near the surface? *A.* It is hard to locate it. From the creep which occurred some years back, it has been evident that there has been a cavity somewhere.
3394. *Q.* Was there a cavity at the 200-foot level;—might a fall there have driven it right through? *A.* Yes, possibly.
3395. *Q.* And the fact of these men hearing the fall, and the men getting the wind where they did, it is probable that there was a heavy fall from high up? *A.* Yes, it seemed to be; but that is no criterion about the wind. They might as well have felt it a mile away.
3396. *Q.* You know where they were when they felt the first wind—in C 3 stope;—what distance would that be from the boundary? *A.* Somewhere about 400 feet or 500 feet from the boundary.
3397. *Q.* Do you think it probable that the run of ground was a little below the 500 level? *A.* Yes, it must have been. As soon as she broke through the 500 there is a direct drive right up to where the men were working; that goes into the winze where they were putting in the slide.

Witness—F. Dawe, 23 March, 1903.

3398. *Q.* Do you think a run of ground would do that? *A.* No. It must have been a fall, for a run would not cause that draught, and there must have been a vent between the Central and the South to cause the draught to come to where they were.
3399. *Q.* What is your idea as to what might be done to prevent these creeps in the future? *A.* Every man tries to take every precaution, but mishaps will happen. You cannot better the mullocking of stopes, and they are thoroughly filled up stope after stope. The hanging wall is the only thing you have to contend against for pressure.
3400. *Q.* What amount of shrinkage would there be in mullock;—supposing the pressure is applied to depleted stopes, what pressure would there be, and what shrinkage? *A.* The shrinkage, I should reckon, would be from 10 per cent. to 15 per cent. on the average. If the mullock gets pressure, and everything is secure, it does not shrink any more.
3401. *Q.* You have horizontal pressure? *A.* Yes, on top of it.
3402. *Q.* Do you know of anything that could be done any more than is done at the present time? *A.* Unless you leave the boundaries to a certain extent, and then work them both together on one level, and take out the whole body of ore right up to the boundaries.
3403. *Q.* Do you think that possible? *A.* I think it better; or leave the pillar altogether.
3404. *Q.* What size? *A.* 25 feet each side of the boundary.
3405. *Q.* You would have to be guided by the size of the lode and the quality of the ground? *A.* The ore is all they look for; if there is any intrusion they do not take it out.
3406. *Mr. Hall.] Q.* You think it would be possible, for the safety of the mines, for each company to leave a pillar on the boundary, by mutual arrangement, and work them out at the same time? *A.* Yes.
3407. *Q.* And I take it that your opinion is that as soon as the ore is removed, it should be well mullocked up by each company? *A.* Yes.
3408. *Q.* In your opinion, it would be a great risk, involving the other company's property, to remove ore from the boundary, and not mullock after it? *A.* Yes.
3409. *Q.* You said the shrinkage in a full stope would be about 10 per cent. to 15 per cent.;—by a full stope, what height do you mean? *A.* That is 100 feet.
3410. *Q.* In the Central Mine is it usual to wait until you have taken out 100 feet before mullocking? *A.* No; we mullock up after every set is taken out. After every stope is taken out it is mullocked. The miners then work on the mullock.
3411. *Mr. Edwards.] Q.* Do you say that is the practice throughout the Central Mine;—are there no big stopes? *A.* It has been the practice since ever the Central has been the Central. There is no stope more than 7 or 8 feet high taken off a stope. After that is mullocked, we take another off the same height.
3412. *Mr. Hall.] Q.* Working on top of the mullock will batter it down? *A.* Yes.
3413. *Q.* In the Central Mine the shrinkage would be 10 per cent. to 15 per cent.? *A.* It would be less than that.
3414. *Q.* In answer to the Commissioner, you said the first falls were evidently caused by the backs giving way in the old paddocking in the South Mine, and letting the mullock out;—where from? *A.* From the 500 level; and that is what made it run. There must have been a fall of mullock in the Central Mine.
3415. *Q.* Is that your explanation of the two falls? *A.* Yes.
3416. *Q.* The first one caused the mullock to break away; the second one went through, the mullock having run out? *A.* Yes.
3417. *Q.* You heard Lyons and one or two of the other men say they had never seen you or Mr. Milne in the vicinity of the chute? *A.* As a matter of fact, I passed there shortly before the creep. We also went into the slide three or four weeks before, Mr. Milne and I.
3418. *Q.* After the June creep, you know of the drive that was put through at the 400 level into the South Mine;—did you, after that drive was broken through, go in? *A.* Yes, the next day I went in with Cox, the shift-boss.
3419. *Q.* What did you find? *A.* We found a stope there. I did not go up more than one floor. I went right round it. I saw a cage there which had been used for mullocking.
3420. *Q.* How was the stope left after the working;—had it been completely mullocked? *A.* I could not say. The centre and on the eastern and western walls had none. I could not see back to the sill floor.
3421. *Q.* And the east and west timbers were all open? *A.* Yes.
3422. *Q.* How was that left;—was nothing done to it when it was discovered by the Central? *A.* Thoroughly filled right up with ore.
3423. *Q.* White lead;—now, from your experience and knowledge, was that creep caused, or was it assisted in any way, by a fall occurring in a vug, in shrinkage, or anything of that? *A.* If a man could go and see that, he would have no doubt about his conclusions. If that "vug" had anything to do with it, how could it be standing as it is to-day? The stope would not be left there on top of it. It is standing the same as when we put it there.
3424. *Mr. Wise.] Q.* Do you know of any vug on the 400 level? *A.* No, not to my knowledge.
3425. *Q.* Was there ever a drive put in a vug on the 700 level? *A.* Yes, in A 5 on the sill floor.
3426. *Q.* When did you visit the slide chute last;—how did you go into it? *A.* I went through the gangway and went down through A 2 winze from the 400 level, and went three sets into the gangway and went in on my hands and knees, and then had to crawl, for she was full up all over.
3427. *Q.* Who is in charge of the Central Mine at present? *A.* Thomas Hebbard, while I am here.
3428. *Q.* There is no difference between the two levels of the South and Central Mine? *A.* I do not think so.
3429. *Q.* What difference is there between the Central and Block 10? *A.* I am not quite sure, but I believe 36 feet.
3430. *Q.* Are there any big stopes taken up to the boundary on the 5 and 6 levels at Block 10? *A.* Yes; there has been a little done on the boundary. The stope which has been taken up there was about 50 feet wide—50 feet wide, ten sets.
3431. *Q.* It is not true that there are stopes on the 500 and 600 levels over 100 feet long on the boundary of Block 10? *A.* Not at the 600; there is one at the 500 level. I cannot say if the one at the 600 level is over 100 feet long. There are only two stopes on the 600 level on the boundary of Block 10.
3432. *Q.* Is it true that Block 10 fell into the Central? *A.* Yes, because they mullocked right to the boundary. We have to "nurse the baby" there too.

3433. Q. Do you remember reading in the account of the Block 10 accident that that was caused by the stopping operations of the Central Mine? A. No.
3434. Q. Do you remember any miners being removed from the stopes near the Block 10 boundary? A. I have removed them.
3435. Q. By whose instructions;—from the office? A. No; my own instructions.
3436. Q. Do you remember any movement in A 2 stope on the sill floor? A. No, only in October last.
3437. Q. Are there very many gangways going south closely packed with 10 x 10's on end? A. Yes.
3438. Q. What for? A. Safety, of course, like any other mine would do.
3439. Q. Were any workmen removed from A 2 white lead stope before the accident? A. No.
3440. Q. Why was there a board ten floors above the 500 level, marked "dangerous"? A. In A 2 stope? I never saw a board marked "dangerous." It was never there to my knowledge.
3441. Q. The rock drills have been removed from some places? A. They have never been removed; they have been stopped.
3442. Q. If there was any danger overhead you would not like to work under them? A. No, I certainly would not, and I would not allow men to work there either.
3443. Mr. Edwards.] Q. Vibration from machines is more than by hand? A. It all depends upon the class of ground.
3444. Q. As a matter of fact, you have abandoned the drills at the south end of the mine? A. There never has been any there since the Central has been the Central, barring the western end. That was taken away.
3445. Q. Somebody said there were nine machines in the tool-house. A. That might be; we keep machines on hand.
3446. Q. I suppose this lead presents greater difficulties in working than any lead you have ever had experience of? A. Yes.
3447. Q. It is recognised as being one of the largest—if not the largest lead-deposits in the world? A. Yes, it is the largest I know of.
3448. Q. According to the best ingenuity, experience, and mining skill—as far as you can say, these creeps are not to be prevented? A. Not altogether. Accidents will happen.
3449. Q. From what you know of the South Mine the utmost care is taken for the protection of the mine and men? A. I should say so. I was only there on the 6th June last.
3450. Q. And you could not say it was not mallocked? A. The centre was, but the east footwall and western were not when I went round.
3451. Q. Gangway sets are always left open? A. On the sill floor. You must leave a gangway open.
3452. Q. Do you remember when working on the 400 level Mr. Mayne wanted to connect with the Central Mine for air—two or three years ago? A. I could not say.
3453. Q. In Mr. Hebbard's report, which you no doubt have read, he says: "The certainty that in the event of a further creep in the South Mine the boundary pillars would run into the old cavities caused their removal between 500-foot and 600-foot levels while it was still possible, there being no particular object to serve, seeing that South Mine had disregarded as agreement that was so obviously for the benefit of both parties." Will you point out the pillars which were removed from the boundary at any time;—either in Mr. Rowe's time, Mr. Hebbard's time, or in Mr. Adams' time? A. [Referring to Exhibit 4.] At the 600 level A 5, that has been completely worked out. On the 600 to the 500 level. That was done in Mr. Rowe's time, and was being worked when Mr. Hebbard was appointed assistant manager. Very little work has done after that. Nothing has ever been done to A 5 on the 600 level since 24th May, two years ago. There was an intrusion on the level below the 500 level, that came up to the height of about ten floors.
3454. Q. And next to that, A 4, was that a stope? A. Yes.
3455. Q. On the 600 level, that is almost stoped out to the 500 level? A. Yes, the eastern end of it.
3456. Q. So on the 600 level you have no ground standing on the south boundary until you get to the eastern side of A 4 on the footwall? A. Yes.
3457. Q. As you go further east was there any stoping in A 3;—is that a pillar or stope? A. A 3 pillar.
3458. Q. How much was cut out of that? A. There is an intrusion between that. That was worked some eighteen months ago.
3459. Q. Coming on to A 2, what is that stope? A. That has not been worked for many years.
3460. Q. Then you come to A 1;—the whole of that is worked out? A. A 1 is a block, not a stope.
3461. Q. On the south side of A 1? A. You come into A 2.
3462. Q. What has been done on the 600 level at A 1? A. Nothing has been done there—apart from the stope which went up through A 1; that was taken about seven or eight floors high.
3463. Q. Tell me what amount of solid ground is there standing on this 600 level as far as A 1 from the south boundary to A 1 at the footwall side? A. Part of A 3 pillar is there about five sets wide—it is wider at one end than the other.
3464. Q. Is this [Exhibit 18] a cross section at the 600 level;—is that the commencement of the stope? A. That is the commencement of the stope, I believe.
3465. Q. That is standing on timber? A. I think that is put there for a drive.
3466. Q. What distance is it from A 1 to the south boundary from the north side of A 1? A. 225 feet.
3467. Q. Some mullocking was done by the Central for the South Mine? A. Yes.
3468. Q. Do you know on what level? A. Filling up 7 C stope from the 600 level. I could not tell you how much was filled in.
3469. Q. You have been all over this affected ground two or three times;—from your investigations can you put your finger on the spot where the original cavity was? A. I could not. I could not get into it.
3470. Q. Could you say as the result of your very careful investigation—beyond all doubt—and prove it—that it was in the boundary of the South Mine? A. It was in the South Mine below the 400 winze. I have been into it—into the South Mine at that point.
3471. Q. How could you say it does not take a dip? A. No man ever went down to the bottom. It did not come out anywhere below the 400 foot level.
3472. Q. That is mere assumption? A. No, not at all. It never came out on the 500-foot level in any way. You could not get in to see it because it was backed up.

Witness—F. Dawe, 23 March, 1903.

3473. *Q.* Being a completed stope, and backed up, could you say this does not go behind the stope? *A.* You could not unless you go through the footwall.
3474. *Q.* Can you from your own personal observation say that this creep of June does not end in the Central Mine? *A.* I know it never came in the Central Mine.
3475. *Q.* You stated that mullock would shrink 10 per cent. to 15 per cent.? *A.* Yes.
3476. *Q.* What was the size of the open stopes from the 400 to the 600 levels;—what was the average width? *A.* 30 or 40 feet in the mouth, and about 8 feet only in height.
3477. *Q.* The mullock will shrink 10 per cent. to 15 per cent. if left standing;—that would leave a big cavity between the back and the top of the mullock? *A.* Not if it is kept well blocked up, and looked after.
3478. *Q.* When you broke through on the winze—when was that stope put in? *A.* About four or five years ago.
3479. *Q.* When was it filled? *A.* When it was worked out.
3480. *Q.* Has it been attended to during the last four or five years? *A.* The shift-bosses occasionally go up there, and if anything is wanted the timber men would be sent up there.
3481. *Q.* There was an old truck left there? *A.* Yes.
3482. *Q.* When was it last used for mullocking? *A.* I could not tell you.
3483. *Q.* Has the shrinkage been going on for four or five years? *A.* No.
3484. *Q.* Would that not leave a cavity from the vack? *A.* No, not if kept blocked up after the stope had been done.
3485. *Q.* You said about ten years ago there was a fall of ground in the South Mine;—was that on the boundary? *A.* Yes, as far as I know.
3486. *Q.* Can you say that fall did not take place in the Central Mine? *A.* I could not swear to that, because the tail end is in the Central.
3487. *Q.* What distance within the boundary at the 200 and 300? *A.* Somewhere between 20 and 25 feet in one of the drives.
3488. *Q.* Although you say pillars 25 feet on each side of the boundary should be left, you have stripped the ore right up to the boundary? *A.* On the 600 level, yes.
3489. *Q.* Do you not think it would be safer if you had left an ore pillar there—from the 600 level right up? *A.* There is an intrusion at the 500 level, right on the boundary.
3490. *Q.* The South people got into the boundary first and stoped the ore out? *A.* Yes.
3491. *Q.* That being so, do you not think it would be the wiser plan to leave a solid pillar of ground until they got their part thoroughly secure? *A.* It was all friable ground, and by taking it out and replacing it with timber made it more secure.
3492. *Q.* In the best filled-up sets there is always a chance of the paddocking laths breaking and the mullock trickle out? *A.* Yes.
3493. *Q.* And that makes a cavity on top? *A.* Yes. It will give you warning.
3494. *Q.* Has it been your experience that notwithstanding the best knowledge it is impossible to trace the source of creeps;—will not that apply to this particular creep? *A.* It might do.
3495. *Q.* Could you tell me what is the cubical contents of that part of the Central Mine which has slipped towards the South? *A.* I could not say.
3496. *Q.* As far as you know, is there any cavity on the south boundary, on the South Mine, that would absorb that quantity of ground? *A.* I could not say—it had gone somewhere without doubt.
3497. *Q.* This might have been caused by a fall from the old crush above the 400 level? *A.* Yes.
3498. *Q.* And that might have been in the Central Mine or the South? *A.* I know nothing about the Central Mine above the 400-foot level.
3499. *Q.* Assuming it had been in the South, and men standing on the level at 600 feet, what result would there be—within 80 feet? *A.* They would shift quicker than they could run.
3500. *Q.* If they were there and not hurt, would that not indicate to you that the fall did not take place above that level on the south side? *A.* She might have been blocked up before the crush came.
3501. *Q.* In Mr. Hebbard's report this appears: "Evidences of a very extensive surface movement in the South Mine are easily traceable in the cracks that extend to a distance of 250 feet south from the Central boundary, and in their mullock tunnel at the same point, but about 50 feet below the surface, which has been considerably damaged by the movement." How far do the cracks extend on the south side? *A.* On the northern side of the old shaft—about 85 feet from the south—underground.
3502. *Q.* How far do the cracks extend on the surface? *A.* I do not know.
3503. *Q.* You know Mr. Slee, and you have read his report. Do you agree with this: "In my opinion, no human being is capable of positively stating how and where the first movement in the last creep took place. Probably it originated in one of the old creeps which occurred about eleven years ago in the shallow levels under 400 feet in depth in the South Mine, near the boundary of the Central." Do you agree with that opinion? *A.* No, I do not.
3504. *Q.* Do you know Messrs. Milne and Godfrey? *A.* Yes.
3505. *Q.* Do you agree with this expression of opinion: "Whether the old inaccessible stopes in the vicinity of the creep in the South Mine of some years ago caused the collapse, or some old stopes in the upper levels of the Central, one cannot say for certain, but we can say for certain that this disastrous collapse has not been caused by any work done in either mines during the last two years." Do you agree with that opinion? *A.* Yes, I do.
3506. *Q.* You cannot say for certain whether the cause of the creep was in the old stopes in the South Mine or some old stopes in the upper levels of the Central? *A.* I could not say.
3507. *Mr. Slee.] Q.* A deal has been said about the inspectors of mines not visiting certain parts of the mines;—can you say for certain you and Mr. Milne were there? *A.* Mr. Milne and I were at that chute somewhere about four weeks before the accident.
3508. *Q.* Is it possible that you, Mr. Milne, Mr. Godfrey, or Mr. Wise could go through these levels and not be seen by these workers—those who were working at the particular chute? *A.* We might go there every day during a week, and not see anybody at the slide.
3509. *Q.* You would not go through and stop the work? *A.* No.
3510. *Q.* The proposition you make about 25-foot pillars being left on the boundaries;—do you not think it would be better if each company worked on the boundary, on the same levels, on the same system, and had it filled in at the same time? *A.* Yes.

3511. *Q.* The pillars left there might be rich and valuable ore, and do you not think human nature would have to alter before managers and shareholders will allow 25 feet of rich ore to stand on the boundary when they could work it out in a manner fair to all parties? *A.* Yes.
3512. *Q.* Do you not think that mullockers work in more dangerous places than miners, and that they should be in the charge of a man who knows all about mining? *A.* There is no mullocker ever sent into a dangerous place if we know it. If there is a dangerous place they have to report it to the shift-boss or to the mullock-boss. There is always a man there to look after the mullockers.
3513. *Q.* You say this creep really took place in the South Mine—can any human being really say this creep took place in the South Mine;—did any creep take place on the boundary of the South and Central Mines together? *A.* I believe the one at the 200 and 300 levels did.
3514. *Q.* Is it possible that the same thing might have occurred this time? *A.* Not after what we have discovered through that winze. I do not know how it could.
3515. *Mr. Hall.] Q.* I gather that from your long experience in mining, and from what you have seen, and your knowledge of the Central Mine in particular, you are of opinion that that creep came in the South Mine? *A.* Yes, by what we saw in the bottom of the winze.
3516. *Q.* The system of mullocking in the Central—is it vertical or horizontal sets? *A.* Horizontal layers.
3517. *Q.* You said that in the system of mullocking in the Central Mine the shrinkage would be 10 per cent. to 15 per cent.? *A.* Yes.
3518. *Q.* Is that reduced by each layer of mullock which is put in in horizontal layers? *A.* Yes.
3519. *Q.* Is there any truth in the suggestion that the machine drills were removed because they were dangerous? *A.* No, not at all.
3520. *Mr. Wise.] Q.* Was there a drive going from the tool-box, packed with 10 x 10 on the flats? *A.* Yes.
3521. *Mr. Edwards.] Q.* There is something about a vug on the 700 level, is that the same as on the 600 level;—what size is the one on the 700 level? *A.* I have never been into it.
3522. *Q.* Is this country liable to vugs? *A.* Yes, any body of sulphide is.
3523. *Q.* One of these was very large? *A.* Somewhere about 80 feet long and 25 feet wide—more or less.
3524. *Q.* If such a thing as one of these vugs was to collapse, would that cause the creep? *A.* It could not collapse once it was filled up, unless there was another one underneath. If that vug had collapsed, the stope which is filled tight on top of it would not be standing there.
3525. *Q.* Vuggy ground is rather difficult to work? *A.* Probably. You might bore into one, and not know it.

[Witness left.]

Edwin Kirby Beaumont, re-called, sworn, and examined :—

3526. *Commissioner.] Q.* You prepared these plans, *Exhibits Nos. 19, 20, and 21?* *A.* Yes.
3527. *Q.* You can certify that they are true representations of the mine at the time they purport to be? *A.* Yes.
3528. *Mr. Edwards.] Q.* These plans show accurately from actual surveys of the operations of the Central Mine affected by the creep of October last? *A.* Yes.
3529. *Q.* Can you give us the cubic yards of ore or mullock that has been displaced by the creep? *A.* Yes, I could by calculation.
3530. *Q.* It has been suggested that this mullock has rushed into some cavity in the South Mine; I want to find out if there is a hole in the South Mine sufficient to absorb all that material;—would it take you long to work out the quantities? *A.* I might be able to from my own data. We show here the area affected by the creep.
3531. *Commissioner.] Q.* You want the quantity of the stuff which has disappeared, to see if there is room for it in the South Mine;—there is a certain quantity which has disappeared, and he wants to know what that quantity is? *A.* He wants the vacant spaces estimated.
3532. *Mr. Edwards.] Q.* In the report which has been sent in, something is said about the cracks on the surface;—you made a survey of the surface as well, I understand? *A.* Yes.
3533. *Q.* Can you tell me how far the cracks of the last creep extend on the Central property—how far southwards? *A.* I could not tell you from memory. They go along the western railway, along across the front of the old south engine-room, and they die away before coming to the assay office.
3534. *Q.* Approximately—could you tell from the plans? *A.* The South shaft is about 80 feet from the boundary—50 or 60 feet on the surface. From the South boundary to the south shaft from 50 to 60 feet.
3535. *Q.* What distance is the Kintore shaft from the boundary? *A.* It comes in the middle of A 1 pillar—about 200 feet.
3536. *Q.* Are there any cracks north of the Kintore shaft, underground from this creep? *A.* Not that I know of.
3537. *Q.* The cracks only extend 50 feet from the boundary in the Central Mine? *A.* I will not swear that. Judging from the position of the south shaft being 80 feet —
3538. *Q.* How far is the assay office? *A.* Another 40 or 50 feet further north.
3539. *Q.* They have extended south 250 feet? *A.* Yes; I measured that myself. They are like a lot of concentric cracks. A great number of them have since been filled up with rain, &c.
3540. *Q.* The furthest crack north was 50 or 60 feet from the South boundary? *A.* Roughly.
3541. *Q.* Underground, how far north did you find the furthest movement from the creep? *A.* At the 500 level just a little north of B 5, the old winze.
3542. *Q.* What distance is that from the South boundary? *A.* Roughly, 290 feet.
3543. *Q.* I suppose you made a survey for the purpose of trying to find out the cause of the creep? *A.* No.
3544. *Q.* You made an inspection underground for that purpose as an officer of the company? *A.* I compiled as much information as I could to show the extent of the creep.
3545. *Q.* As a mining surveyor, can you definitely point to any point which was the primary cause of this movement? *A.* As a mining surveyor it has been my duty to survey for the plans—I do not think I can attribute the cause.
3546. *Q.* Can you point to any place in the Central or South as being the originating cause of this creep—from your actual observation—not a matter of theory? *A.* From the 400 level it appeared on portion of the

Witness—E. K. Beaumont, 23 March, 1903.

- the footwall, and where the ground is broken away south of the South shaft, and also particularly above the 400 level the trend was going down on an angle of about 20 degrees pitching southward, which looks as if the mullock from these stopes has gone down at the incline of the same angle. There is a big cavity on the boundary from the winze sunk just inside A 5, the back of the stope at the same inclination, and seeing that there was that cavity on the boundary it is reasonable to assume that the mullock had gone in the same way.
3547. *Q.* Could you go down so as to be able to say whether the cause of the creep was in the South or Central Mine? *A.* I would not say what the cause was at all.
3548. *Q.* Have you a plan showing the workings above the 300 level? *A.* Yes; the longitudinal sections show the workings up above to 200 [*Exhibit* No. 19] and [*Exhibit* No. 21]. These were compiled from an old plan in the office.
3549. *Q.* You have not been through the workings yourself? *A.* I have been up above the 300 level before the creep. You could not get in there now.
3550. *Q.* On the 500 level the creep seems to have extended further north than on the 400—could that have got into the South Mine? *A.* It all depends upon the depth. You could not get into that portion to see. I have not been to the boundary, there is a pillar of ground and an intrusion.
3551. *Q.* The whole of that ore pillar on the 600 level is cut away? *A.* Not all of it, portion of it remains there now.
3552. *Q.* What extent is the intrusion that is standing? *A.* [*Referring to Exhibit* No. 4.] These plans show it—they have been checked with the plans of the South Mine and are correct at that date.
3553. *Q.* Can you tell me whether and the width of the pillar A 5 left standing? *A.* On the sill floor about one set then at about 20 feet high, say 15 feet—the back of the stope would be anything; it is round.
3554. *Q.* From your experience of the Central Mine, is there any side pressure in any particular direction? *A.* From the hanging-wall.
3555. *Q.* A statement was made by one of the witnesses, King;—he made a statutory declaration and says: “I do hereby declare that the place is unsafe to work as the break in country and a heavy side pressure is forcing the timber down towards the South Mine, and the traces of the break can be seen for 200 feet in the west drive”;—is there any general pressure towards the South Mine? *A.* It would have to be end pressure to press it that way. It presses from the hanging-wall towards the south, the hanging-wall is on top.
3556. *Q.* You have a certificate as a mine manager;—do you think that if a solid pillar of ore had been left on the south boundary by the Central Mine that this creep would have occurred? *A.* As the company's surveyor I do not think it is my province to criticise the management of the mine—I decline to say so.
3557. *Q.* Have you had any managerial experience? *A.* I was underground-manager of the Central for some little time.
3558. *Q.* Do you know that stope under the winze spoken of at the 400 level—the winze that was sunk into the old creep of June last? *A.* I know the winze referred to on the 400 level.
3559. *Q.* Did you ever see the stope underneath? *A.* I set out the winze, that is all; I never inspected it.
3560. *Q.* Do you know a cavity showing on the west side of the lode at the 400 level? *A.* That has nothing to do with the October creep.
3561. *Q.* Was there not a creep there at all? *A.* Years ago.
3562. *Q.* Where has the ground gone to which is marked on *Exhibit* No. 2;—has that gone into the South Mine? *A.* It might have.
3563. *Q.* That was solid ground? *A.* Yes; all that is intrusion and country rock, it was never taken out.
3564. *Q.* You cannot say where it has gone? *A.* It is a hard thing to swear to mullock. There is an opening at the 400 level, and it seems most feasible it has gone that way.
3565. *Q.* What is the recognised system of pillar and stope working;—you take the pillar and stope out at the same time, or do you take the stope and the pillars after? *A.* The pillars are left in to support the ground while stoping. That system has been worked in the Central since 1897, when Mr. Courtney came here.
3566. *Q.* Has a pillar been mined upon before the stope has been carried from level to level? *A.* A 3 is the only one.
3567. *Q.* To what extent has A 3 been mined upon? *A.* Just the amount shown in *Exhibit* No. 3. The pillar has not been taken right out, there is a portion of it left; the portion shown in blue at the 500 level and all the intrusion pillar—*Exhibit* No. 2—the pillar at the 400 level and at the 600 level the lode pinches in.
3568. *Q.* What is the width of the work at A 3, and the breadth? *A.* Four sets one way and seven sets the other.
3569. *Q.* From the 600 to the 500 is the pillar standing at A 5? *A.* The small portion shown in *Exhibit* No. 4, four sets by four—that is before the creep. I have not been there since.
3570. *Q.* At the 700 level there is a vug;—has the 700 level ever been explored for vugs? *A.* It is shown on *Exhibit* 19. Vugs are natural in the ground.
3571. *Q.* You do not know whether it opens out down below? *A.* I did not care about going into it.
3572. *Q.* What depth does the 600 vug go to from the level? *A.* Mostly below the 600 level, it turns westward.
3573. *Q.* Were you on the mine the time it was filled up;—what was it filled with? *A.* With ore. That was 1897.
3574. *Q.* I understand there is a stope standing on that vug? *A.* Yes.
3575. *Q.* Does it show any signs of pressure or sinking? *A.* No; you could walk through the level.
3576. *Q.* Could you use it as a mining level? *A.* You could not get trucks there, but it is boomed up.
3577. *Q.* You know the 600 foot level in the South Mine? *A.* Yes.
3578. *Q.* If a fall had taken place from the 400 to the 600 on the boundary of the South Mine, do you think it possible for men to be in the level on the 600 in the South Mine when the fall took place and not be injured? *A.* Not if they were where the creep occurred they would not.
3579. *Q.* If they were in the gangway at the 600 level? *A.* They would be there now. They had a movement in the South. They would have been injured by the rush of air.
3580. *Q.* I think you know that the South Mine was at the boundary with their stopes before the Central got there at the 400 and 500 levels? *A.* Especially at the 400; I had been through there.

3581. *Q.* You remember a tube or vent being put through? *A.* Bill Rowe's pile—that was put through in 1898 or 1899.
3582. *Q.* The south stope was completed then? *A.* I could not say.
3583. *Mr. Wise.*] *Q.* That vug that was filled up with ore—that is not the usual practice to fill vugs with ore? *A.* It was filling itself up while I was there.
3584. *Q.* Are the same timbers there now that were there in 1897;—I suppose the timber could disappear and another lot be erected? *A.* I could not swear as to the timber.
3585. *Q.* *Exhibit 2* is the 400 level made up to the end of last year? *A.* Yes.
3586. *Q.* *Exhibit 4* is made up the same? *A.* Yes.
3587. *Q.* It goes into Block 10 boundary? *A.* The toe of it does, about 8 feet.
3588. *Q.* Would that stope on *Exhibit 2* be 100 feet long on Block 10 boundary? *A.* About 70 feet on the boundary.
3589. *Q.* The other one—*Exhibit 3*? *A.* It extends to the north side of D 2 about 100 feet. That is where we holed through at one time.
3590. *Q.* Is it carried very high up? *A.* 25 or 30 feet. It batters down towards the boundary in the form of an arch.
3591. *Q.* Do you ever remember any of the Block 10 mullock falling out of Block 10 into the Central workings? *A.* There was a slight movement on the boundary, and some of it fell our way.
3592. *Q.* Are the Central levels lower than Block 10? *A.* Yes, about 30 feet.
3593. *Mr. Hall.*] *Q.* Mr. Edwards [asked you about the men working in the South Mine at the 600-foot level when the fall might occur from the 400 to the 500 level;—would that not all depend upon the vent the wind had to get through the stopes? *A.* Yes.
3594. *Q.* Have you travelled the stopes from the 600 to the 500 levels lately on the boundary? *A.* Yes.
3595. *Q.* Do you know whether it is open or crushed? *A.* It is crushed now.
3596. *Q.* Do you know if it was in October? *A.* I know below the 600, but not above the 600 level. I had no occasion to go there.
3597. *Mr. Edwards.*] *Q.* Do you know anything about the rescue winze put down? *A.* Yes.
3598. *Q.* Do you know where they discovered the plat sheets and railway iron and other things? *A.* In the winze about 30 feet down.
3599. *Q.* In which direction? *A.* It went pretty plumb; it was discovered in the winze.
3600. *Q.* Were they not vertically underneath where they had been on the level? *A.* Yes.
3601. *Q.* Do you think from your experience that if there was a trend in any direction would they have gone with the mullock? *A.* They would have gone with the mullock.
3602. *Commissioner.*] *Q.* If they were found directly underneath where they were on the level, had they gone to the north or south? *A.* That would be north. The rescue winze is two sets north.
3603. *Q.* That had moved two sets north from where it was originally? *A.* That is so.
3604. *Q.* You said something about the pillar on the boundary;—do you not think it would be advantageous to have some distinct understanding as to the work done on the boundary of any mine;—should it not be worked in conjunction with the neighbouring mine:—what does your experience teach you? *A.* I like to see a pillar left. It often prevents disputes about the boundary.
3605. *Q.* In Victoria they have some such system? *A.* Yes; in the mines in Victoria they leave 2 feet of no man's ground on the boundary, but it used to make disputes.
3606. *Mr. Slee.*] *Q.* As a surveyor, have you not noticed that very often small pillars are more dangerous than no pillar at all;—do you not think the timber and filling is better than a pillar which is probably crumbling away? *A.* It is certainly better than a small pillar.
3607. *Q.* And you must alter human nature before you can get managers and shareholders to consent to leave ore pillars on the boundary? *A.* That is a question of arrangement. I certainly think that friable pillars should be removed and timbered up.
3608. *Q.* And these pillars they talk so much about have done more harm than good;—do you really think these small pillars support the ground? *A.* A small one will not, but a big one will. Fifty feet is a good pillar, like that in the Central.

[Witness left.]

[The Commission adjourned till 10:30 a.m. on Tuesday, 24th March, 1903.]

TUESDAY, 24 MARCH, 1903.

[The Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited) Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

James Hebbard, called in, sworn, and examined:—

3609. *Commissioner.*] *Q.* What is your full name? *A.* James Hebbard.

3610. *Q.* You are the manager of the Central Mine? *A.* Yes.

3611. *Q.* And have been so for how long? *A.* Since September last year.

3612. *Q.* Previous to that you were Mining Inspector? *A.* Yes, up to the end of 1900. I had been Mining Inspector for nine years.

Witness—J. Hebbard, 24 March, 1903.

3613. Q. And previous to that you had considerable mining experience? A. About twelve or thirteen years previous to that.
3614. Q. What was the first year you were Mining Inspector in Broken Hill? A. I was appointed in December, 1891.
3615. Q. And during your time here you have seen a number of these creeps? A. Yes.
3616. Q. Can you state them briefly? A. The first creep I was associated with was on the Central-South boundary, that was in 1892.
3617. Q. No lives were lost in that one? A. No. I was through the ground a day or so before the occurrence.
3618. Q. Do you know the reason assigned for that one? A. A heavy pressure of the back came from the surface. I do not know if I can give you the various creeps in their order of date, but I will go as near to it as I can. The movement in Block 12 of the Proprietary Mine was the next.
3619. Q. Was the cause of that one ascertained? A. I think a general pressure of the hanging-wall, the hanging-wall being flat. The creep on Block 11 was the next one. That was caused by pressure of the overhanging-wall. The next one, I believe, was the creep in the South Mine above the 400-foot level. The cause of that, I think, was the weight of the overhanging wall and pressure coming from a different direction in that case. In the case of the Proprietary Mine, it was one direct pressure of the hanging-wall, but in this case it was the pressure of the overhanging country owing to the contour of the lode. After that there was the moving of the rock that was overlying the kaolin body in Block 10. That was a very gradual shrinkage. Then, I think, the next one was the movement of the footwall portion of the lode in the 600 stopes in the South Mine. Then there was the creep in the Junction Mine which occurred on Good Friday—I could not tell you the year, and I do not know if I am giving them in their chronological order.
3620. Q. Was that creep caused through want of timber? A. No. The mine was heavily timbered, so much so that it was hard to get through the timbers. I do not know if any of these creeps was the want of timber. Then there was the movement of the hanging-wall side of the lode in Block 14, and, I think, in point of quantity of earth leaving that was the biggest. The surface cracks in that instance showed for 300 feet and the movement was 300 feet in depth. That was a very gentle movement, and did not do much damage to the mine or its workings. I think these are all the creeps I can remember occurring while I was Inspector. The British creep occurred while I was at Lewis Ponds. I was incidentally connected with a further movement on the South Mine—that one which was the cause of the loss of Bennetta and party. I went into the South Mine to render assistance if I could.
3621. Q. That was hardly in the nature of a creep? A. No; more in the nature of a fall, a continuation of the previous one.
3622. Q. Was the previous one on the same level? A. That was one from the 400 level. I had forgotten the movement of the hanging-wall side above the 400 level in the Central Mine that occurred in 1896.
3623. Q. Nearly all these have been gradual settlements from the hanging-wall side? A. In some instances sudden falls without warning, or with very little warning.
3624. Q. After this creep in October you sent a report to the Chief Inspector of Mines? A. Yes; at his request.
3625. Q. That report is contained in Appendix "C," *Exhibit* No. 9;—is there anything you wish to add to the report? A. It is correct so far as the facts have been ascertained. I have not looked through it, but as Mr. Edwards mentioned something the other day—in the light of the knowledge we have gained since of what the movement was like, I think that might have been modified. I refer now to the paragraph commencing: "I am rather inclined to think that the movement had its commencement in a fall from the old cavity near the surface," that is the third paragraph on page 3 of Appendix "C," *Exhibit* No. 9. In regard to that it seems to me that now it is just as likely that the movement had its commencement underneath somewhere as from the surface.
3626. Q. About what level do you think? A. That would be very hard to state.
3627. Q. Would it be below the 500 level? A. Certainly below 400, and perhaps below the 500 level. It was certainly below the 400-foot level. At the time this was written we knew scarcely anything of the underground movements, and the opinion then was based on what we saw on the surface for we had not been able to explore as you have done.
3628. Q. Will you give us your opinion now with the new light thrown on the matter as to how it occurred? A. I think the movement occurred through the breaking of our boundary timbers in some way. Knowing what might be called the succession of creeps at various depths from the 400 level up and from the 500 level up to be somewhere pretty close to the boundary of the South Mine, I conclude that a fall has occurred there which had broken the timbers and allowed the mullock to run out. I think the first break occurred in the South Mine somewhere in connection with the old creeps on the boundary.
3629. Q. We have heard about the June movement—there was a cavity found in the old South shaft, and afterwards in the winze;—would it be anywhere in that locality? A. As far as I can see, we think we definitely traced that movement from the bottom of the South shaft to the back of the stope where Bennetta, Edwards, and the rest of them lost their lives.
3630. Q. Can you form any idea of how far from your boundary the men were working—that is, to that particular place? A. The place where the men were working—judging roughly—would be about 60 feet from the boundary, and from that point to the boundary the ground was stoped.
3631. Q. Was there stoping between the boundary and this particular place? A. As far as I recollect, when we went into the South Mine on the occasion of that accident, I think I have a pretty distinct recollection of its being pointed out to me by Mr. Mayne.
3632. Q. You say there was some work done in the South Mine between that cavity and the Central boundary? A. I understood a stope had been working north from where these men had been working. I was only in there for a little while, and I went primarily for the purpose of rendering assistance.
3633. Q. I think you mentioned one word in your report which you wished to draw attention to? A. Yes. If you will look at line 2 of paragraph 4, *Exhibit* No. 9, the word "our" should read "one"; and I would like it to be read in that way. The typewriter has evidently misread my notes.
3634. Q. By your report there was, apparently, a verbal arrangement between Mr. Courtney and the South Company's Consulting Manager about leaving some ground standing on the boundary? A. Yes.
3635. Q. Did that come before you in your capacity as mining inspector? A. Yes; Mr. Courtney referred it to me on one occasion.

3636. *Q.* Did you, as a Mining Inspector, think that a pillar or strip of ground should be left? *A.* I think such an arrangement would be desirable. I might state that the arrangement was made beforehand. When the knowledge of it came to me the arrangement was supposed to be in force, as a letter discloses the fact that, notwithstanding the arrangement that had been made, the South Mine was working out to the boundary.
3637. *Q.* Did you have any personal interviews with Mr. Courtney or the South people about it? *A.* I could hardly remember. I could only refer to the letter.
3638. *Q.* Perhaps you will produce the letter? *A.* I produce here a press copy of a letter from myself to the Chief Inspector of Mines, dated 24th August, 1897.—[*Put in and marked Exhibit No. 22.*] Letter (press copy) from myself to the Chief Inspector of Mines, dated 14th July, 1896.—[*Put in and marked Exhibit No. 24.*] Press copy from myself to the Chief Inspector of Mines, dated 18th June, 1902.—[*Put in and marked Exhibit No. 25.*] And a copy of a letter from the Chief Inspector of Mines to myself, dated 31st August, 1897.—[*Put in and marked Exhibit No. 23.*]
3639. *Q.* You say in your report that, shortly after becoming connected with the Central Mine, you suggested the advisability of filling on the boundary;—what particular part of the South workings are you referring to? *A.* That was from the 700-foot level, up.
3640. *Q.* Why was that suggestion made? *A.* The South Mine had a large open stope—I cannot say from memory how long or how broad—but connected in one part, or very nearly connected at the 600-foot level. There was no filling, or little or no filling, beyond what might have been rejected from the ore. I knew from my visits through the South Mine that the hanging-wall was very rotten, and that the ore itself was not much good; and, owing to flaws, if the stope had been filled up it would prevent the hanging-wall from coming away to a certain extent, and enable both mines to work with a measure of safety which would not be were the stope left open.
3641. *Q.* Was that ever accepted? *A.* Yes; finally accepted.
3642. *Q.* Was it filled on the boundary? *A.* There were 178 sets filled, but not on the boundary. Most of these arrangements—the preliminaries—were arranged by letter through our General Manager and the Managing Director of the South Mine. The details were mostly left in the hands of Mr. Mayne. The first proposition was to fill up five sets right up from the 700 level to the top of the stope leaving one set south open across the lode next to the boundary line which we were to use for the convenience of taking off stopes and being responsible for the filling-up. What was finally done was to cut a strip down three sets wide, and there were 178 sets filled when Mr. Mayne sent in word to stop putting in any more mullock.
3643. *Q.* Was it square-set ground? *A.* All square sets.
3644. *Q.* You estimated it would take 8,000 yards to fill it? *A.* That was to fill the strip that we proposed to fill.
3645. *Q.* This would be above the 700 level? *A.* Between the 700 and the 600. It is the stopes on the 700 level.
3646. *Q.* I take it that would hardly have any connection with the present creep? *A.* I think from going into the South Mine that portion of the 600 level has broken through to the 700 level. I think there were plans of the movement showing that. The amount of movement that the South plans show is greater at the 700 level than on the 600 level.
3647. *Q.* According to the joint estimate, it would take nearly another 7,000 yards to fill it? *A.* Yes; the strip that was proposed to be filled—nothing like nearly the whole stope. The South Mine were then completing arrangements for mullocking their own way. This strip across the stope was in order to impose a tight weight against the hanging-wall. It was five sets wide across to the hanging-wall.
3648. *Q.* Could you say if that has been filled since, or any part of it? *A.* I think some mullock has been put in since the date of that arrangement. I have never been in the stope.
3649. *Q.* In the next paragraph you say you had these boundary pillars removed between the 500 and 600 levels? *A.* Yes.
3650. *Q.* Why was that done if its presence there was any protection? *A.* The A 5 pillar between the 500 and 600, a good portion of it, had been removed when I became connected with the Central Mine, at the beginning of 1891, and all the ore that I saw in the remaining portion of that stope was of a very friable nature. As a matter of fact, I know it was removed for the express purpose of replacing it with something of a more stable nature than the friable ore that was there.
3651. *Q.* As far as your experience goes, is the working of the boundaries of the mines in this district satisfactory? *A.* Well, it is not. I think some definite arrangement should be arrived at.
3652. *Q.* Can you suggest anything? *A.* Some arrangement that would be abided by, either to leave the boundary pillars, or to work from the boundary instead of towards it. I think either way would be satisfactory.
3653. *Q.* It depends upon the nature of the ground, too? *A.* It would depend wholly upon the nature of the ground.
3654. *Q.* There has been a good deal said about the mullockers going into dangerous places—as to their work in dangerous places;—will you tell me what is your system in the Central Mine regarding the mullockers? *A.* The mullockers go into the stope after the miners have taken out the ore and the timber has been secured.
3655. *Q.* But in the case of filling up underneath a creep, or anything of that sort? *A.* We have never had to do that.
3656. *Q.* Take, for instance, the filling of this cavity at the bottom of the winze. Had mullockers to go there? *A.* I do not think mullockers had to go there at all. They were trucking mullock to the top of the winze. The miners who sank the winze did the work in it.
3657. *Q.* In your mine are mullockers allowed to go anywhere in dangerous ground? *A.* No man is allowed to go in a dangerous place except for securing it.
3658. *Mr. Hall.* *Q.* I think between the 600 and 500 levels in the South Mine there have been several creeps or falls within the last four or five years? *A.* There was a movement off the footwall of the tenth floor in the 600 stopes. A movement took to the 400 level, and the subsequent movement was the fall that caused the death of Bennetta, and there was the fall that we came to the knowledge of on 5th June last.
3659. *Q.* When you went into the South Mine what was the effect of the last movement;—did it bring down the backs further on? *A.* Yes; the place of entrance to the stope when we examined it on the 5th June was apparently closed quite up from the fall from the back.
3660. *Q.* In your opinion, and from what you saw of the South Mine, were these connected? *A.* I do not know the exact survey of the mine, but the further fall was connected. For instance, there would not be

Witness—J. Hebbard, 24 March, 1903.

very much distance of solid ground. The footwall stope on the 400 level, to my recollection, was worked up to the old bottoms of the 300 level. That would connect that stope almost up to the original creep of 1892. There was a horse of country between that stope and the stope that collapsed at the time of the big disaster in 1895. Then, not knowing the height to which the fall had extended above the back of the 500, I could not say how much ground there was between that and the 1895 creep. The heavy fall would quite likely connect the whole of that. Then you would have a connection right through to the surface.

3661. *Q.* The fall of May, 1901, carried off the backs of all higher than the previous slide there? *A.* Yes.

3662. *Q.* And the fall which occurred in June last year apparently brought the backs above the 500 level—*to what height you could not say?* *A.* No.

3663. I think you heard Prior and Slocum, the two timbermen, describing what they heard and what happened the night of the creep;—they said that from the first rush of wind to when they heard the second fall was half an hour? *A.* Yes.

3664. *Q.* Is that statement a fact that corresponds with your theory of the fall as given this morning? *A.* Yes, it corresponds very well. If a movement on the boundary caused our mullock to run, it would very probably remove the support that was under the ground at A 1 and the edge of B 5. If that happened, the fall would be vertical and would spread its influence in every direction with the impact of the fall.

3665. *Q.* Do I take it that your opinion is that the second fall was caused through the mullock running out and allowing the unsupported backs—or supported only by a pillar at the 400 in addition to the 500?

A. The gangway leading to B 5 chute was in such a position that it left an arch of ground from three to four sets thick between that gangway and the 400-level and above the 400 level; on that there was a full stope of the height of about 40 feet. So that there would be that mass of ore and mullock to fall.

3666. *Q.* In your opinion, was it such a fall as you have described, approximately, that position that made the second fall that was heard by Prior and Slocum? *A.* I think so, judging from the fact that in the first run that they heard—and reported by Lyons and the rest of them—both the 500 main cross-cuts and the 400 main cross-cuts were standing, although they were evidencing pressure. The fall which collapsed this must have been subsequent to the running of the mullock.

3667. *Q.* And would be caused by mullock running out? *A.* Yes.

3668. *Q.* A deal of stress has been laid on the fact that at the 500 feet level evidence of the creep extended further north than at the 400 level;—is there anything in your mind extraordinary in that—seeing that does it still confirm your opinion? *A.* It tends to confirm it because the shape of the stope that existed at the 400 and 500 levels in B 5 practically conforms to what we know of the creep. I will show it on Exhibit 19—longitudinal section at “D.” That is practically the shape of the stope as it existed at the creep. Both Mr. Dawe and myself got in here and climbed up through there. There was the open stope except where choked by running mullock. That enabled us to go up a good distance to the back of the stope, and as far as we could see this ground marked blue had not moved at all. What we see at the edge of the north break in B 5 confirms the opinion that the fall had been southward. This was a tangled mass of timbers, mullock, and filling. The ground still conformed to what we knew the shape of the stope to be.

3669. *Q.* Will you show on the plan, approximately, where the second fall occurred from the 400 to the 500 level? *A.* Exhibit 19, section at “D.” The B 5 chute was on the southern side of B 5 section, and so had been sunk there about 30 feet of solid ore to the point where it entered the stope in A 1. This stope had been worked in connection with the old White-lead Workings as they were called. Presuming that the mullock supporting that piece of ground at the back of A 1 had run out the fall taking place would then be on the back of the stope about 30 feet in height, and over the workings to a height of 40 feet immediately above it. The fall would thus be vertical.

3670. *Q.* You know what is known as the rescue winze; some plat-sheets and some lines were found there;—would the knowledge of that strengthen the opinion you have given us as to how the fall occurred? *A.* Yes; it does.

3671. *Q.* And the fact of their being found two sets further north than when they were on the surface bear out your opinion? *A.* An investigation of the extreme limits of the creep in B 5 on the 500 level proves conclusively that there had been open sets there as the result of the creep in the south. If the movement was south, as we presume the open sets would be left on the extreme northern edge of the creep. We proved that by climbing up behind it. A forward fall there would be just as liable to carry northwards as it would southwards.

3672. *Q.* That is how you account for the plat-sheets being there? *A.* Yes.

3673. *Q.* Look at Exhibit No. 21: does that red mark show the direction of the cavity that was filled up as far as possibly could be filled by the Central? *A.* Yes. As Mr. Dawe told you yesterday, we investigated the report of that movement of June 4th—Dawe, my brother, and myself. Our first exploration was at the furthest point of the 200 level as far southward as we could go. Next, the 300 level as far as we could go; and we went down in a sort of diagonal crosscut, and we got to the boundary line. We attempted to climb down a ladder-way to the shaft from the 300 to the 400 level, and there we discovered a cavity by my brother nearly dropping into it. We returned to the old main shaft, and came back to the South shaft. There was an opening immediately beneath the shaft of 8 or 9 feet in depth. The timbers of the gangway both north and south on the main levels were standing intact. The cavity looking southward had a pitch to the south.

3674. *Q.* Then I think that cavity was filled up, as has been described by Mr. Dawe;—then you caused that winze to be sunk? *A.* Yes; when we had found the cavity and the trend of it, I concluded from what I know of the position of the south stope at that point that there had been, possibly, a further fall from the back of that stope, and the next day we inspected it with Mr. Mayne, and we found the entrance of that particular stope had again been closed. I think that we connected this with the movement that we found down here without any shadow of a doubt, and the winze was subsequently sunk to investigate and fill it up if possible.

3675. *Q.* You made some calculation as to what depth at which you would strike it? *A.* We concluded after this, and what we know of the South Mine, we concluded we would get the cavity at about 40 feet. We got it at 44 feet.

3676. *Q.* Did Mr. Mayne accompany you? *A.* No.; he was very busy at the time we made the inspection.

3677. *Q.* From what you know, has this “vug” we hear so much about at the 600 level had anything to do with this creep? *A.* Not the slightest; and I might say we went into it on the way over to B 5, and it is standing there now. You can go down into the “vug” and see light through it, and talk through as plain as possible.

3678. *Q.* You have heard Mr. Edwards questioning the witnesses about the crack or cavity you discovered in June, and he asked them if the cavity had not doubled back into the Central Mine—whether it did not go underfoot—alter its natural trend and go into the Central Mine again? *A.* I do not see the possibility of that. It appears from King's evidence—he was not in the South Mine; but he must have been mighty close to it, from the length of cable he used, and the distance he went he must have been mighty close to the South Mine boundary.

3679. *Q.* From what you have heard of the evidence on oath, and from what you know, there is little doubt in your mind as to where the crack went to? *A.* I had no doubt on that point. It went into the South Mine.

3680. *Q.* Do you know if any steps were taken in the South Mine to discover where it went to, or did they take any steps to fill it up if it appeared in the South? *A.* Not to my knowledge.

3681. *Q.* I think the plan [*Exhibit 21*] will show the amount of stuff that was removed from the pillars—it is shown in green? *A.* Yes; as far as I understand the request for the information.

3682. *Q.* That has been done during your time? *A.* Yes.

3683. *Q.* Has the removal of that portion of the stuff in the pillars in the slightest degree contributed to this creep? *A.* I do not think so for a moment.

3684. *Q.* In your opinion, would the removal of that friable pillar at the 600 and 500 level of the boundary and replacing it with timber well filled with mullock add to the security of that portion of the mine? *A.* I do think it added to it. When I saw the stope first, on becoming connected with the Central Mine, it was of a very friable nature. It was worked out on driving laths.

3685. *Q.* We have heard opinions about the shrinkage in mullock;—what is the system of filling mullock in the Central Mine? *A.* It is put in horizontal layers.

3686. *Q.* That is not the system that obtains all over Broken Hill;—other mines have other methods? *A.* It cannot obtain in places where the whole stope is worked out before the filling is put in. It can only obtain where it is filled up immediately after the stope has been stripped. We strip a set and fill it up. The filling in of square-set stopes is carried out by filling to a height of a foot above the run of the timber to allow for compression.

3687. *Q.* As each set is filled the miners work on it and break down on that mullock? *A.* Yes; all the ore is broken down on to it.

3688. *Q.* That compresses the mullock, and under that system there would not be the shrinkage that would be in the system of filling after the whole mass was taken out? *A.* No; because the shrinkage goes on gradually, and each layer is further compressed by the breaking of the ore on top of it. It takes about five or six years to beat out a stope from top to bottom, so there would be no shrinkage in at least 75 per cent. of the total mullock height which had been shrinking for so many years.

3689. *Q.* So the shrinkage would be small, indeed? *A.* It is taken up with each successive layer.

3690. *Q.* On the question of putting mullock into the South Mine at the 700 to the 600 level, I take it you consider that was absolutely essential? *A.* Yes.

3691. *Q.* Were you in any way making a profit out of the South Mine? *A.* We were doing it for the South Mine at our own absolute cost.

3692. *Q.* The notification came from the South Mine that they did not want any more mullock put in? *A.* Yes. I think Mr. Mayne reckoned that, instead of mullock costing 1s., he could put it in for about 6d.

3693. *Q.* That filling was broken off when, practically, one-seventh part of it had been done? *A.* Yes.

3694. *Q.* These are the rules belonging to the Central Mine? *A.* Yes. (*Copy of Rules and Regulations of the Sulphide Corporation (Limited), put in and marked Exhibit No. 26.*)

3695. *Q.* In those rules it is stipulated that workmen are to make report should any dangerous places be observed;—prior to this creep, was any report received by you as to any portion of the mine—B 5 or any portion—being unsafe? *A.* No.

3696. *Q.* I think you have a special footnote to the rules, stating that as it is impossible to frame rules to cover everything, it is specially desired that workmen shall at once report anything that is considered dangerous or unsafe? *A.* Yes. Those are embodied in the new draft of the new calico rules being put up under the new Mining Regulations.

3697. *Q.* There has been a good deal of questioning about the use of machines in the Central Mine and their discontinuance;—is there any truth in the suggestion that these were discontinued on account of the mine being in a shaky condition? *A.* Not the slightest.

3698. *Q.* I think, during the first six months of last year, you had a statement prepared showing the relative amount of stuff mined per man by machines and by hand; and you gave a copy of that statement to Mr. Wainwright of the South Mine for his information? *A.* Yes.

3699. *Q.* According to your statement, the tonnage worked by hand was in excess of that worked by machines per man? *A.* A slightly higher tonnage per man per shift with hand work than the machines—that was for the period of six months. After that we discontinued using the machines. Wherever we could find men willing to take on hand labour rather than machines, we gradually dropped the machines out until in October we had four instead of twelve.

3700. *Q.* Were these four working between Kintore shaft and the south boundary? *A.* One was working on the 800 level at that time. They were only retained where the speedy accomplishment of the work became a factor.

3701. *Q.* Have you measured the distance from the boundary line between the South and Central of the cracks that were visible and arising from the creep;—on the surface? *A.* Yes; they show on our surface plans.

3702. *Q.* Can you tell us how far north on the surface they existed from the boundary line, and how far from the South Mine? *A.* The furthest point at which cracks were traceable northwards from the boundary line on the Central was between the South engine house and the shaft itself. That would be about 70 or 80 feet. Beyond that they were not distinguishable.

3703. *Q.* And south of the boundary on the South Mine? *A.* They could be traced for 320 feet; all very distinct cracks. That showed movement for 250 feet from the line.

3704. *Q.* In your report to the Chief Inspector of Mines you say:—“To my knowledge, nothing in the way of investigation of the extent or position of the series of creeps in the South Mine has ever been undertaken, there being so little ground or ore between them that a heavy fall in either of them would break the separating

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- separating ground and make them one, as has evidently happened, seeing that in the South Mine a movement can be traced from surface down to 700-foot level";—do you still say that? *A.* Yes; I do not know of anything having been done, ever.
3705. *Q.* A letter has been read this morning from yourself to Mr. Slee of the 14th July, 1896 [*Exhibit* No. 24]; in that letter you state that the management had kept the mullock filling as close up as possible, and everything had been done that could be done; that was written long before you ever contemplated holding any position in the Central Mine? *A.* Yes; long before.
3706. *Q.* And that referred to work in the Central Mine as far back as 1896? *A.* That was during the time of Mr. Randolph Adams' management, I think.
3707. *Q.* You expressed the opinion there that, in your opinion, the mullock and timbering is the safest and best way for the security of the mine? *A.* Yes.
3708. *Q.* Have you since then seen any reason to change that opinion? *A.* I have been strongly confirmed in that opinion since the open-cut system started in the Proprietary Mine. During my term in the Proprietary Mine as shift boss the work was being done by men who were accustomed to filling, and all the stopes in the early days were filled from the surface. When the open-cuts came to be operated, these were the only suitable parts of the mine—the parts of the mine which had been worked on the filling system which the Yankees knocked out.
3709. *Mr. Wise.* *Q.* It has been said by a previous witness that square-set mullocking is the best system of securing a mine;—is that your opinion? *A.* Not necessarily; according to the nature of the ground.
3710. *Q.* You stated that all places are carefully examined;—by whom? *A.* By miners; by competent miners.
3711. *Q.* Ever by the shift bosses? *A.* Always; that is part of their duties. Every shift, as they pass through the stopes.
3712. *Q.* You said no man is allowed to go in except to secure it;—are truckers never sent into places to secure it? *A.* Not that I know of.
3713. *Q.* Are they sent in to pack mullock? *A.* Not in a dangerous place.
3714. *Q.* You said miners had to go in to secure dangerous ground;—have the mullockers to go there after? *A.* The miners have been there and secured it before the mullockers go in.
3715. *Q.* You think practical miners should be in charge of mullockers to look after them;—practical miners should be in charge? *A.* Those are the men who are in charge of them—the mullock boss.
3716. *Q.* Is Crimp a practical miner? *A.* He has had a good many years' experience working in all sorts of places.
3717. *Q.* Do you know if he ever worked as a miner? *A.* He has been underground for a number of years.
3718. *Q.* On Exhibit 2 some work is shown on the 400 level;—what style of timbering is that? *A.* That is entirely square-set timbering.
3719. *Q.* Was it done under your supervision? *A.* Some of it since I have been in the mine, for a height of two sets.
3720. *Q.* Can you give me the size of the stope along Block 10 boundary? *A.* Fifty to 60 feet. I should like to explain that the work done here has been done for the express purpose of investigating old stopes of eleven or twelve years ago. That has been done since I have been associated with the mine.
3721. *Q.* Exhibit No. 4;—what is that? *A.* That is an encroachment into Block 10, broken out by the Central.
3722. *Q.* Do you know that when these stopes were taken out by the Central Mine, was the ground in the 10 stoped out? *A.* On every point where the Central has touched they found Block 10 stope right at the boundary.
3723. *Q.* I believe you are the registered manager of the Central Mine under the Mines Inspection Act, and under the provisions of the Act you exercise personal daily supervision? *A.* Yes; myself or those whom I might appoint, I think the Act reads.
3724. *Q.* Who was in charge on the night that the men went below? *A.* I was.
3725. *Q.* Were you at the mine? *A.* No; I was at home. I was manager of the mine on that night. Crimp was in charge of the men down below.
3726. *Q.* Do you think you exercised proper supervision in placing Crimp in charge of twenty-seven men without a shift boss? *A.* Yes, I do.
3727. *Q.* On this particular night there was no shift boss? *A.* No, no shift boss. There has not been a shift boss underground at night since the two shifts came into vogue. Ever since we started working two shifts there has been no shift boss.
3728. *Q.* Do the mullockers go underground without the mullock boss? *A.* The shift boss is in charge of the mine; he is in charge of the mullockers.
3729. *Q.* Did you ever visit B 5 slide? *A.* I have been there; I have been through that stope, and through it as Inspector after it was filled. I do not think I have been at the slide since I have been manager of the mine.
3730. *Q.* Did you have any idea that they had to crawl in? *A.* Yes; I crawled in myself after the stope was filled.
3731. *Q.* Did you think it right to ask men to work there? *A.* Yes I did, when five minutes' work would have cleared enough room to have stood up in it.
3732. *Q.* How is it that the bosses have not seen to this? *A.* No necessity; it could, apparently, be run well enough.
3733. *Q.* How much lower are the Central levels than Block 10? *A.* About 39 feet.
3734. *Q.* Have you ever been bad friends with the managers of the adjoining mines about the boundaries? *A.* I might have had a little argument about it.
3735. *Q.* You say you have taken the boundary of Block 10, 100 feet and 30 feet high;—in going right up to the boundary, do you not think you are endangering the workings of the next mine? *A.* We did not know their stope was there.
3736. *Q.* Have you not stated that you found they were there before you? *A.* Where we opened on to Block 10 was 10 feet below the level, and we found the stope there. I do not think it would endanger it. Block 10 is too well filled to be endangered in any way.
3737. *Q.* Were the miners ever called out of the stopes at Block 10? *A.* Yes; when the movement occurred in Block 10.

3738. *Q.* You remember the last Block 10 creep on the Central boundary? *A.* You cannot call that a creep; it was a slide movement.
3739. *Q.* At the time Block 10 moved it was stated in the local Press that it was caused by the Central? *A.* I never noticed that.
3740. *Q.* What is the number of the white-lead stope? *A.* I do not think it ever had a number. It was worked out and finished before this block system came into vogue.
3741. *Q.* Prior, in giving evidence, stated that he and his mate were working three floors below the 400 level at some timbering in the winze; the first thing they knew of the movement was wind coming up C 2; that would be about 600 feet from the boundary? *A.* Yes.
3742. *Q.* Would a movement such as you describe affect the pass at that distance? *A.* I think so; it all depends on whether there is a vent.
3743. *Q.* But in view of the fact that you appear to think the movement was towards the South, would it be apt to cause the wind at that height? *A.* It depends entirely upon the gangways.
3744. *Q.* The evidence, is that the whole of the country between the 400 and 500 was mullocked up? *A.* The 500 gangway on the main level going south was open right to the boundary.
3745. *Q.* And you think it quite possible it will fall in with your theory? *A.* Yes; it would travel the whole length of the gangway.
3746. *Q.* On the second occasion they heard a distinct fall—probably half an hour afterwards;—if the fall came from above, would it be likely that it would have formed that cavity? *A.* The cavity we saw was the original back of the stope; as far as we know, there was little or no movement from the back of our original stopes.
3747. *Q.* It has been explored above the 400 level? *A.* It would be of very little or no value there, the movement is noticeable to a very slight extent at the 300 level, back in the region of the footwall, but not in the direction of the cavity we pass down near. I might explain here that there is one portion of the cavity we passed over that has been filled with mullock for 30 feet since the creep.
3748. *Q.* That was done for the purpose of rescue work? *A.* That was to enable us to go on with the rescue winze, and to secure the Kintore shaft pillar.
3749. *Q.* Has it been proved that the movement on the surface has been connected with the creep? *A.* The underground portion of the movement was known at 3 o'clock in the morning, and almost the first I heard of it was the opening of the surface. It could not be explored, for they are evidently simultaneous.
3750. *Q.* Would you tell us what has been done in the matter of endeavouring to recover the bodies of the unfortunate men? *A.* Preliminary work was done on both the 500 and 400 levels to attempt to get at the position of the bodies. The general opinion appeared to be that at the time of the collapse these men could not have removed from the vicinity of B 5. We then concluded that the quickest and safest way on that supposition was to renew B 5 winze from the 400-foot level, and before that was done we filled up the cavity that we got below and above the 400-foot level and sank the winze through the mullock again. That work was continued until the renewed winze had reached a depth of about 65 feet. Then there appeared to be a slight shrinkage of the mullock which left the bottom of the winze slightly. We determined that before going any further we should fill up the whole remaining cavity in A 1 stope. That work is in progress now.
3751. *Q.* What depth used the slide to be from the 400 level? *A.* The original position of the slide was about 30 feet below the 400-foot level; the position of that slide was about the position of the back of the A 1 original stope.
3752. *Q.* I think you said that part of B 5 was through the solid ore;—has that gone too? *A.* That has gone except the portion close to B 5 block. In reopening the winze we found it entirely surrounded by solid ore. After getting down some 9 or 10 feet we had the solid ore on one side; the rest was mullock and filling we had put in after the creep. Then the solid ore continued downward at the north side of the rescue winze, about 50 feet.
3753. *Q.* Previous to the creep, did this pillar go right through to the 500 level? *A.* No; that was a stope. All the pillar portion of it was filled stope.
3754. *Q.* Then you actually got below the original position of the slide? *A.* Yes. Just about the time we were compelled to stop, there seemed to be indications that we were getting the timbers that formerly belonged to the slide, but there was no certainty about it.
3755. *Q.* This gangway was how long? *A.* About 50 feet, as it went diagonally to the stope. They might have been anywhere; they might have been on the 500 level.
3756. *Q.* The work of rescue was dangerous work? *A.* It was not particularly safe, certainly; the surroundings were as good as we could make them.
3757. *Q.* I suppose the work was properly supervised? *A.* Thoroughly; we had the best men in the mine on it. Mr. Slee, the Chief Inspector of Mines, personally asked the men their opinion, and they expressed their desire to go on and take the risks. I desired to be freed from any responsibility in sending the men there to such work.
3758. *Q.* Has everything been done that could be done up to the present for the recovery of the bodies? *A.* I think so.
3759. *Q.* I think, from the evidence, it appeared that apparently part of the movement was to the north from the winze? *A.* I think not; only the influences of a vertical fall spreading itself in the worked stopes.
3760. *Q.* It is hard to say on which side of the old shaft the bodies might be at the present time? *A.* If they were at the point of the commencement of the movement of the mullock, the probability is that the bodies will be found a point further south than the winze. They might have been making their escape. We assume that they might have been away from the immediate vicinity of B 5, and the possibility is that they might have got to A 2, and with that object in view we sunk a special winze in the A 2 at 400 down to the A 2 at the 500 for the express purpose of investigating. We found that the portion of the back of A 2 was intact. That was where the mullocking was going on. That back is intact to day.
3761. *Q.* I suppose the Mining Inspectors have been there? *A.* Yes; been there very constantly during all our rescue work.
3762. *Mr. Edwards.] Q.* In reference to the statement in your report, referring to the verbal agreement between the parties relative to the boundaries, do you think there is any correspondence on the subject? *A.* I am not sure if there was between the local offices, but between Mr. Joe Butterworth, who was then Secretary, and the Secretary of the South Mine. It was an arrangement between the Secretary of each company that Mr. Greenaway and Mr. Courtenay should confer on the matter. 3763.

Witness—J. Hebbard, 24 March, 1903.

3763. Q. Have you the letters bearing on that? A. Yes; we have some letters about that.
3764. Q. Can you give me the dates? A. One of the 10th May, 1897, is a letter signed by Mr. R. Ford.
3765. Q. I understand that the ore on the boundary is very friable, and that you think stopes properly filled would be a better protection? A. On the 500 level there is a pillar, and on the 400 level there is a pillar; at the time of the October creep were intact as far as we knew. It was intrusive rock and had not been removed. It shows on Exhibit 3.
3766. Q. And from the 500 to the 600 levels? A. From the 500 it was portion of the intrusion splitting the middle of the ore body and leaving ore on either side of it.
3767. Q. So the ore was taken out on both sides? A. Of the intrusion, and right up to the intrusion. I think it comes a little below the 500-foot level.
3768. Q. The ore is very valuable? A. No more than the average. It was not hard rodenite but good sulphide.
3769. Q. In your report you say, "The certainty that in the event of a further creep in the South Mine the boundary pillars would run into the old cavities caused their removal between the 500 and 600 levels." Did you anticipate a further creep? A. You must remember that the removal of the pillars was long before I started at the mine. I had nothing to do with the commencement of it.
3770. Q. You carried out the remainder of the removal? A. Mr. Rowe had full charge of the mine.
3771. Q. Mr. Rowe was responsible for the removal of the pillars? A. Yes; you can say that.
3772. Q. You go on to say, "There being no particular object to serve, seeing that the South Mine had disregarded an agreement that was so obviously for the benefit of both parties." You mean from that that the South Mine had cut away their side of the party wall, then you took yours down? A. I mean by that that if a further creep occurred it would pay the Central better to have mullock and timber running away than ore.
3773. Q. You had in your mind that the South Mine had broken their agreement? A. This was in course of removal when I went to the mine.
3774. Q. Because the South Mine took away their ore pillars the Central Mine thought they were justified in taking theirs away too? A. No, I do not look at it in that way.
3775. Q. How do you mean it then? A. As it has been explained over and over again, the pillar of ore remaining was of such a rotten character it was deemed advisable to remove it and put in timber. This report was written in about half an hour—I am rather surprised that it is as clear as it is.
3776. Q. Then you want to alter that report and say the reason was that it was so rotten that it would not support the ground? A. No.
3777. Q. Do you wish it to remain as it is? A. Yes.
3778. Q. Is it a fact that this pillar was so rotten that it would not give any support? A. At the time I saw it I do not think there was much support in it, and mullock would be better.
3779. Q. We asked for the plans showing the work done on the pillars in your time, right from the 800 level up? A. The 700 or 800 is not being worked on the pillar and block system—it is being worked in conformity with the ideas of the chief mining expert in New South Wales—and that is to work from the boundary backwards. A 4 and A 5 on the 700 and 800 levels are being worked from the stopes of the South mine back to the Kintore shaft. We are working backwards and leaving the boundary behind us.
3780. Q. What extent is worked in your mine on the 700 level back from the stopes of the South Mine? A. About 75 feet. Four or five floors.
3781. Q. So you do not believe in leaving pillars on the boundary? A. Yes; I absolutely believe in it so long as the party on the other side keep to their agreement.
3782. Q. If one works to the boundary you think the other is entitled to? A. Yes, absolutely.
3783. Q. Supposing the South work to the boundary and you work to the boundary, what will keep the ground up? A. Our timber and mullock filling.
3784. Q. Supposing one party fills and the other party does not fill the stopes? A. It would be a menace to the safety of the mine, and they should be compelled to fill it.
3785. Q. What is the width and height of A 4 and A 5? A. About 75 feet up, about five or six floors. At the 800 it is only up to the third floor.
3786. Q. In working the system of pillar and stope, the system is to work the stope from level to level before taking the pillars out? A. Not necessarily.
3787. Q. Do you work the pillar and stope at the same time? A. If it suits we do.
3788. Q. You have been working the pillar and stope at the same time in places? A. Not anywhere except as a means of connecting stopes.
3789. Q. From the north side of A 3 to the boundary of the South the ore was worked on the pillar and stope system? A. The footwall stopes on the 600 level go to the boundary.
3790. Q. So the ground on the north side of A 3 to the south boundary have been worked in pillar and stope since 1897? A. Yes.
3791. Q. Has no work been done on the pillars? A. Yes; A 4 was beaten out previously, then A 5 was completed and A 3 was tackled.
3792. Q. Were they not working at the same time? A. Not to my knowledge.
3793. Q. So on the 500 level was the pillar and stope system adopted? A. Throughout the mine. The same system adopted in 1897 is being followed throughout the mine.
3794. Q. At the 700 and 800 levels there is no pillar left on the boundary? A. No.
3795. Q. Do you not think you should modify your report to some extent—anyone would come to the conclusion that you were working the mine throughout on the pillar and stope, and you have cut away the stope on the boundary? A. Working the pillar and stope system does not imply that you are to leave a pillar on the boundary. We have still a big pillar on the 700 level—instead of making it 50 feet wide we make 75 feet wide.
3796. Q. When you come to the 600 and 500 levels, the pillars have been removed? A. Yes, certainly.
3797. Q. So there is no pillar on the boundary from the 500 to the 800 feet levels? A. No.
3798. Q. Do you not think leaving a pillar on the boundary would have strengthened the mine? A. I think a pillar left on the boundary by mutual arrangement of both parties is a good thing.
3799. Q. Who got to the boundary first? A. The South Mine.
3800. Q. How long before you at the various levels? A. I could not tell. I know the 600-level stopes of the South Mine were a good height before the Central got there.

3801. *Q.* Do you not think if the Central had left a 50-foot pillar that it would have prevented this creep?
A. Yes; it would have been a great assistance.
3802. *Q.* Do you think, as a practical miner, if the Central had left a pillar of 40 feet on the boundary, this would have been prevented—between the 400 and 800-foot levels?
A. At the time of the October disaster, between the 400 and 500 levels the Central Mine boundary was standing.
3803. *Q.* Supposing they had left it from the 400 to the 700, would that have prevented this creep;—say a pillar 40 feet wide?
A. It would not have occurred if the South Mine had been filled up.
3804. *Q.* Will you tell me the width of the pillar above the 500 level A 5?
A. As disclosed on *Exhibit* No. 3 from the footwall line to the conjecture hanging-wall on the boundary is 106 feet in width and at its longest point from the boundary is 70 feet, that is, across the lode.
3805. *Q.* Is the width only 12 feet?
A. Yes; but there is a horse of country in between.
3806. *Q.* So that above the 500 level there is 60 feet in height, and only 12 feet wide?
A. That is so.
3807. *Q.* And I take it from the 800 for 360 feet from the 800 there is only a pillar 12 feet wide in one place?
A. If you go a little further west you will find one 75 feet wide.
3808. *Q.* Can you give me any idea of the quantity of ground that you say ran away from the Central towards the south of the cavity that is exposed?
A. I could not say; there is a big cavity.
3809. *Q.* How many cubic yards have you put in?
A. About 10,000 or 11,000 yards, possibly, by this time.
3810. *Q.* The creep on the 400-foot level has run away 190 feet;—what height do you say it has gone?
A. About 40 feet above the 400-foot level.
3811. *Q.* Taking into consideration that the plat sheets were found 32 feet below the level, and at the 500 level the creep had extended a distance of 290 feet from the boundary, can you form any idea from that?
A. I feel pretty certain that all the effect you can see on the 500 level was produced by a fall of ore or mullock filling immediately at the bottom of the 400 level above it. Thirty feet of ore and 40 feet of filling.
3812. *Q.* You say in your report that it was from the old cavity near the surface, and now you say it is from the fall from the lower levels?
A. I said that anything might be modified. I think it is as likely to come from one place as from another—the original movement.
3813. *Q.* You have read Mr. Slee's report and those of the mining inspectors; do you agree with those;—do you agree with those reports?
A. I say I quite agree that no human being can positively say where the creep originated, but I have a reasonable conjecture in my own mind. All the facts point one way.
3814. *Q.* Do you agree with Messrs. Milne and Godfrey when they say, "Whether the old inaccessible stopes in the vicinity of the creep in the South Mine of some years ago caused the collapse, or some old stopes in the upper levels of the Central, one cannot say for certain"?
A. I should like to know what particular places and creeps they mean.
3815. *Q.* I presume they mean the stopes above the 400 level;—you will notice they refer to the cavities above the 400 level?
A. Neither of these gentlemen had any opportunity of knowing anything about cavities above the 400 level.
3816. *Q.* Do you disagree with their opinion?
A. I do not agree entirely with that, because their experience and knowledge of these mines only goes back a certain distance. I agree that it has not been caused by anything done during the last two years.
3817. *Q.* What you do not agree with is in reference to the Central Mine?
A. I know the old creep on the South Mine boundary, and I know the influences in the South Mine are much larger than in the Central, and that the movements disclosed by the recent creep are much larger in the South than in the Central.
3818. *Q.* Is it possible to say the present movement has not arisen directly or indirectly from the old creep?
A. You must take into consideration the other creeps on the South Mine.
3819. *Q.* You know the stones on the South Mine are square sets—the old ones on the boundary?
A. Yes.
3820. *Q.* Filled with mullock, are they not better than open stopes?
A. It all depends on the class of ground.
3821. *Q.* Do you not think it would give stability to the place?
A. If you fill them in horizontal sections, then the settlement is gradual. If you fill it entirely after you have battened it up, it will carry it down and leave a big space in the back. There would be a certain side pressure from both walls, and the mullock would have a tendency to break from the back. Unless the shrinkage were constantly taken up, there would ultimately be a big space.
3822. *Q.* I suppose it is in your experience as a mine manager and inspector, you have open sections of a where you cannot at the moment get mullock in;—you have to wait until you can get it?
A. As far as we are concerned, it does not go on until we are prepared to go through.
3823. *Q.* I suppose a rush of ground from the 300 to the 400-foot levels with such a volume of ground as you lost from the Central would carry an enormous pressure with it?
A. I do not think the first movement was in the nature of a fall at all. The conditions are such that I do not think it was a fall at all.
3824. *Q.* Can you at the present moment put your finger on the place, and say, "This is the place where the creep was caused"?
A. No, certainly not; but I can be reasonably sure.
3825. *Q.* That June creep that ran from the old main shaft towards the south;—that was secured up to your satisfaction before work was proceeded with?
A. As much as we could secure it.
3826. *Mr. Wise.] Q.* Have the Mining Inspectors ever ordered the miners to withdraw from opposite Campbell's shaft?
A. They never ordered such a thing; it was a request, and it was complied with.
3827. *Q.* Block 10 is all square set;—do you know if they had to spike their sets when they struck your boundary?
A. I think something of the kind did occur; they had a few dog spikes in the timbers. They could have blocked them if they had used long enough blocks.
3828. *Mr. Hall.] Q.* Mr. Edwards asked you if you could point to the spot where the creep started;—does it alter your expressed opinion that the creep started in the South Mine.
A. No.
3829. *Q.* I understand from your answers that you do not wish to alter your report, but do not agree with the interpretation Mr. Edwards wishes to put on it?
A. No.
3830. *Q.* You have been asked about the South Mine being mullocked;—do you remember anything at all about the South Mine removing mullock from some of their stopes and other portions of the mine?
A. I know the time they were working the quarry surrounding Piper's old, and Mr. Mayne told me he was taking out more mullock than he was putting in.
3831. *Commissioner.] Q.* What was that for?
A. Piper's old shaft is some distance from the boundary.

Witness—J. Hebbard, 24 March, 1903.

3832. *Mr. Hall.*] *Q.* I think you know of your own knowledge that correspondence has passed between the Melbourne office of the South Mine and the secretary of the Central Mine with regard to leaving the boundary between the two mines? *A.* Yes. There is a copy of a letter from Mr. R. Ford, manager of the Broken Hill South Silver-mining Company, Melbourne, to the secretary of the Central Company, dated 10th May, 1897. That is the only one I have. [*Copy of letter put in and marked Exhibit No. 27.*]

[Witness left.]

[The Commission adjourned till Wednesday, 25th March, at 10-30 a.m.]

WEDNESDAY, 25 MARCH, 1903.

[*The Royal Commission sat at 10-30 a.m., in the Town Hall, Broken Hill.*]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Albert, William, Stolor, re-called sworn, and examined:—

3833. *Commissioner.*] *Q.* You have some plans to produce? *A.* I produce (1.) Plan of longitudinal cross sections looking north-west A, B, C, D, E, and F. These lines correspond with the similar plan of the Central Mine. (2.) Cross sections of the South Mine on the boundary. [*Plans put in and marked respectively exhibits Nos. 28 and 29.*]

3834. *Mr. Edwards.*] *Q.* You are surveyor to the South Mine;—how many years have you been there and held that position? *A.* Since 1897.

3835. *Q.* You remember the creep in June, last year? *A.* I do not know much about the June creep in the Central.

3836. *Q.* That movement took place in the South Mine in June? *A.* Some years ago I had typhoid fever, and my memory is not so good. I can only go by what is on the plans.

3837. *Q.* In this plan you say "Reference to creep shown yellow, 1895 creep shown in black, 1900 creep show in violet, and 1902 shown in green"? *A.* Yes.

3838. *Q.* Are they correctly coloured? *A.* Yes, they are.

3839. *Q.* You have been through both the Central and the South Mines since the October creep? *A.* Yes.

3840. *Q.* From your observation can you say whether there is any cavity in the South Mine that could absorb anything like the quantity of mullock and ground that has come away in the Central Mine? *A.* Not a quarter of it—I should not even think that much.

3841. *Q.* We have it in evidence that from 10,000 to 11,000 yards of mullock have already been put in by the Central Mine in addition to the cavity you saw there. Is there any indication of a cavity having existed on the boundary of the South Mine to absorb that quantity of material? *A.* None at all that I know of.

3842. *Q.* Do you know a stope on the 400 level? *A.* Yes.

3843. *Q.* Do you know if that was mullocked? *A.* Yes, as well as could be.

3844. *Q.* Up to what floor? *A.* Up to the fifth floor, there were six floors, it was mullocked up to the fifth floor.

3845. *Q.* Can you explain why the top set was not mullocked? *A.* I did not go up in these places. When I did go there, I could see that it was mullocked up five floors.

3846. *Q.* Is there any indication of there having been any cavity or fall on the boundary of the South and Central Mines sufficient to take the amount which has fallen out of the Central Mine? *A.* Not at all.

3847. *Q.* That is from the 400 down to the 800? *A.* Yes.

3848. *Q.* Do you know the 600-foot level? *A.* Yes.

3849. *Q.* Do you know Simmons and Weiser, who were trucking at the time of the October creep? *A.* Yes.

3850. *Q.* Do you know where they were trucking from? *A.* From the main mullock chute on the 600 level, the one that goes from the surface.

3851. *Q.* Is that connected with an open drive to the boundary of the Central? *A.* Yes, you could go round their way.

3852. *Q.* Do you know the angle caused by the main gangway and cross-cut. You know the junction of the two? *A.* Yes.

3853. *Q.* If men had been standing at the angle of the main drive with the cross-cut and a fall had taken place above the 600-foot level, what effect would that have had on them? *A.* If it did not come down to the 600 they might not know there was a fall at all, but it would displace the air a little.

3854. *Q.* But if the 500 and 600 levels had crushed in right down to the 600 level? *A.* I believe it would have pretty nearly killed them.

3855. *Q.* What effect did the creep of October have upon the stope on the 600-foot level? *A.* It all got crushed in as shown on the plan. Thirty or 40 feet from the boundary the timbers are crushed.

3856. *Q.* Have you been through that part of the mine since? *A.* I have been up on the 600 level, 25 feet from the boundary.

3857. *Q.* On top of that there is a winze? *A.* The winze was sunk through the ground and the stope put over it.

3858. *Q.* How far from the boundary of the Central? *A.* Twenty-five feet.

3859.

3859. *Q.* When were you at the mullock pass last? *A.* I was within 30 feet of the boundary three weeks ago.
3860. *Q.* Was the stope standing? *A.* To the westward it was standing, but to the right it was broken, you could crawl through.
3861. *Q.* Did that appear to be the result of a fall from the back or above; or the result of pressure coming in from the Central Mine? *A.* I could not say how it happened. It might have been one or the other.
3862. *Q.* Assuming that the large quantity of ground which you have seen came out of the Central—would that have broken it in? *A.* Yes.
3863. *Q.* With reference to the markings in green on the plans, are they from your surveys, or are they taken from the plans? *A.* My own surveys at the top levels, below no one has been able to get there as far as I know in my time. On the 500 level it is from my survey—down to the fourth floor below the 500 level is my own survey, and the others are taken from the plans in the office.
3864. *Mr. Hall.] Q.* When were the surveys made by you? *A.* I suppose a couple of years ago.
3865. *Q.* Could you get in there at the June creep? *A.* Yes, you could get in where these places are marked green. You could get in after the May creep of two years ago. The creep shown in black was before my time.
3866. *Q.* The mine has official records of each which are presumed to be correct? *A.* They are from the official records of the mine and partly from my own surveys.
3867. *Q.* Do you know yourself what the conditions of the South Mine is on the boundary at the surface, and to the 300 level? *A.* I do not know.
3868. *Q.* From the 400 level to the 300 level do you know what the condition is? *A.* You could get up to the 377, but you could not get anywhere near the boundary at any level above the 400 feet.
3869. *Q.* Refer to Exhibit No. 7, in this plan all this ground up to 379 feet level is not marked or coloured? *A.* It is coloured green.
3870. *Q.* Are you in a position to say what the condition of the South Mine is in the blank spaces shown on the plan? *A.* No, I am not.
3871. *Q.* Is that on account of the crushing in of the ground? *A.* At the 400 level there used to be a way up, but I never went up. I never had occasion to.
3872. *Q.* What is the condition from the 400 to the 500 levels? *A.* I think it is solid ground.
3873. *Q.* How much solid ground is there to the westward between the big stope;—does that not connect up a few floors from the level;—are you prepared to say it does not? *A.* No.
3874. *Q.* Referring to exhibit No. 7—between the 500 and 600 levels on the boundary, could you since the October creep explore that ground at all? *A.* No, not up to the boundary.
3875. *Q.* Could you have done so before the October creep? *A.* Not very near the boundary.
3876. *Q.* So far as you are personally concerned, you do not know what was the condition of the mine near the boundary between the 500 and 600 foot levels at the time of the October creep? *A.* Since I could get to the boundary, the sets were standing all right, and a lot of mullock between—about 40 or 50 feet—what the state of the stope was right against the boundary I could not say.
3877. *Q.* Did you know what the condition was between the 600 and 700 levels at the time of the October creep? *A.* Pretty well all mullocked up—that is recent work.
3878. *Q.* When was it mullocked? *A.* The Central put in a lot of filling for us.
3879. *Q.* Did the South afterwards put in as much as the Central had put in there? *A.* I could not say, I know they put in a lot. I when through the sets a good time before the accident.
3880. *Q.* In answer to Mr. Edwards you said you did not think there was any cavity in the South Mine to absorb the amount of stuff which is apparently gone from the Central. In order to say that you must be able to say what amount of stuff came from the Central. Have you any idea? *A.* Only from appearance. When I went down I saw there was not room for the enormous amount of stuff.
3881. *Q.* Have you any idea of the cubic contents of the stopes in the South Mine near the boundary? *A.* I could not tell you that.
3882. *Q.* Have you any idea of the cubic contents of the material which has left the Central? *A.* No.
3883. *Q.* Then, not knowing whether of these two points, is there any weight at all in your reply to Mr. Edwards that not a quarter of the material that left the Central could have been absorbed in the South? *A.* I still say so.
3884. *Q.* Are you prepared to deny that the mullock has run out from the Central into the South at all? *A.* I would not deny it.
3885. *Q.* How soon after the October creep did you go into the different levels below the 400 for the purpose of making plans? *A.* It might have been two months, or three months, or more. About three or four months.
3886. *Q.* Have you heard of any movements in the South Mine that would correspond with the movements at these levels during these months? *A.* No.
3887. *Q.* On the boundary of the South Mine, has there not been a complete shrinkage in the mullock in the stopes right down from the 400 to the 800 level—near the boundary? *A.* There has been a collapse of timber; but whether of mullock I could not say.
3888. *Q.* As a surveyor, can you say if there is any shrinkage in mullock filling when filled in vertically? *A.* Yes: it shrinks about 15 per cent. or somewhere about that.
3889. *Q.* You have had no practical experience in mining? *A.* No.
3890. *Q.* Have you noticed any very big stopes in the South Mine being worked with no mullock in them? *A.* Yes.
3891. *Q.* Do you not know of your own knowledge that in the South Mine they nearly complete the stope before mullocking? *A.* With the exception of the ones on the Central boundary—since the Central knocked off filling the stope at the 800 they got a mullock pass put on.
3892. *Q.* Do you not know that even as late as last year there was a shortage in the supply of mullock in the South Mine;—do you know whether there was sufficient mullock available to fill the depleted stopes? *A.* We could always do with more mullock, I expect.
3893. *Q.* You said there was no fall or cavity on the South on the boundary from the 400 to the 800 foot levels—no cavity that you know of;—do you know of any? *A.* The only place there was to fill was part at the back of the 500 level as shown on the plans.

Witness—A. W. Stohr, 25 March, 1903.

3894. *Q.* Do you know where Simmons and Weiser were working? *A.* Yes.
 3895. *Q.* Is there any direct connection there that would allow the wind to get there except through the full mullock pass? *A.* No.
 3896. *Q.* In answer to Mr. Edwards, you said since the October creep you had got within 30 feet of the boundary, and to the east a few sets were down;—how far to the east did that extend? *A.* The footwall was only about 5 feet away.
 3897. *Q.* And the mere fact that the winze was not affected has no bearing on the creep? *A.* No; it is right away from the workings. It is not far from the 400 stope.
 3898. *Commissioner.] Q.* You prepared that plan of the ground above the 400 level from information received from the officials? *A.* Yes, as regards the colouring.

[Witness left.]

John William Mayne, called in, sworn, and examined:—

3899. *Commissioner.] Q.* What is your full name? *A.* John William Mayne.
 3900. *Q.* What are you? *A.* An engine-driver.
 3901. *Q.* Working in the South Mine? *A.* Yes.
 3902. *Q.* Have you had any mining experience? *A.* No.
 3903. *Q.* Not as a miner? *A.* No.
 3904. *Mr. Edwards.] Q.* You know the 400 level of the South Mine? *A.* Yes.
 3905. *Q.* You remember being employed some four years ago on a winch;—what were you doing? *A.* Pulling mullock with the winch from the 400 sill floor to the 4th set.
 3906. *Q.* How long were you working there? *A.* About three months.
 3907. *Q.* Do you know who was distributing the mullock? *A.* Dick Bone.
 3908. *Q.* That was on the 400 level in the South Mine? *A.* Yes.
 3909. *Q.* How close to the South boundary were you? *A.* I could not say.
 3910. *Q.* Do you know the name or number of the stope? *A.* No.
 3911. *Q.* Who put you there? *A.* Sam Mayne.
 3912. *Mr. Hall.] Q.* When were you working there? *A.* I cannot recollect the exact date or year; but I reckon about three years ago.
 3913. *Q.* Have you any particular reason for remembering the fact that you were working there? *A.* No.
 3914. *Q.* Who told you they were pulling from the sill floor to the 4th set? *A.* No one.
 3915. *Q.* You were engaged at the winch;—you did not leave the winch to see where they were putting the mullock? *A.* No.
 3916. *Q.* You do not know how near you were to the boundary;—how did you know it was the 4th set? *A.* They took the mullock from the landing stage.

[Witness left.]

Richard Bone, called in, sworn, and examined:—

3917. *Commissioner.] Q.* What is your full name? *A.* Richard Bone.
 3918. *Q.* You are a mullocker employed in the South Mine? *A.* Yes.
 3919. *Q.* How long have you been so employed? *A.* Something over seven years.
 3920. *Q.* Have you had any previous mining experience? *A.* I worked in Block 14 and the Central mines.
 3921. *Q.* How long have you been in the mines altogether? *A.* Something over eight years.
 3922. *Mr. Edwards.] Q.* Do you know the 400 level near the Central boundary of the South Mine? *A.* I do.
 3923. *Q.* Were you working there, mullocking, with J. W. Mayne? *A.* Yes.
 3924. *Q.* About how long ago? *A.* It may be three years or more.
 3925. *Q.* How long were you working on the level? *A.* From two to three months.
 3926. *Q.* What were you doing? *A.* I was landing mullock and filling up on the 5th floor.
 3927. *Q.* Mayne was driving a winch on the same floor? *A.* Yes.
 3928. *Q.* How was it hoisted? *A.* In trucks in the cage.
 3929. *Q.* How high was the cage? *A.* Somewhere about 5 feet.
 3930. *Q.* How many sets high was the stope? *A.* About five.
 3931. *Q.* That stope was filled up by you? *A.* Part of it.
 3932. *Q.* How much of it did you fill? *A.* From the sill up to the 5th floor.
 3933. *Q.* Had any mullock been put into any of the sets before you went there? *A.* A little.
 3934. *Q.* And you completed the mullocking? *A.* While I was there.
 3935. *Q.* When you left it can you say whether the stope was fully mullocked up? *A.* I would not like to say it was fully mullocked up. As well as I could fill it.
 3936. *Q.* If they were filled as well as you could fill them, how can you not say that they were not fully mullocked? *A.* We had to throw it up one set.
 3937. *Q.* With the exception of that one set, were the other sets filled? *A.* Most of the sets I filled I filled as close and tight as I was able.
 3938. *Mr. Hall.] Q.* Was there anything special about the mullocking of this part of the mine that you should particularly remember it? *A.* No.
 3939. *Q.* How long had you worked there? *A.* Some three or four months.
 3940. *Q.* How many sets did you fill? *A.* I could not tell you exactly.
 3941. *Q.* Was the sill floor mullocked? *A.* I believe it was.
 3942. *Q.* As to the remaining floors? *A.* I cannot say about the top. When I say the top one I mean the one below the top.
 3943. *Q.* Were they all mullocked up, or was there a pillar of mullock in the centre? *A.* There was a gangway on each side.
 3944. *Q.* Were the sets filled? *A.* Not to my knowledge.
 3945. *Q.* How long is it since you saw that place last? *A.* I have not been there since the last day I worked there.
 3946. *Q.* If witnesses say that, with the exception of the sill floor, there was only a pillar of mullock put in there, would that be correct or incorrect? *A.* Incorrect.

3947. *Q.* If it is sworn that, when the place was visited last year, there was only on the sill floor a few sets filled with mullock, would that be untrue? *A.* Certainly, it would be untrue.
3948. *Mr. Wise.] Q.* Can you tell me how often you have seen Mr. Milne and Mr. Godfrey in the South Mine? *A.* I have seen them every time I have been on day shift, every week—I do not mean to say I have seen them every week.
3949. *Q.* When you were at the mullocking, did you ever see them at the stopes? *A.* I cannot say that I did.
3950. *Q.* Will you swear they were never there? *A.* No.
3951. *Mr. Milne.] Q.* Do you know if the inspectors were here when you were spreading that mullock? *A.* I do not know. I doubt if they were.

[Witness left.]

William Henry Simmons, called in, sworn, and examined :—

3952. *Commissioner.] Q.* What is your full name? *A.* William Henry Simmons.
3953. *Q.* What is your occupation? *A.* A trucker.
3954. *Q.* What mining experience have you had? *A.* About three years.
3955. *Q.* How long have you been in the South Mine? *A.* All that time.
3956. *Mr. Edwards.] Q.* Do you remember the 8th October, the night of the creep in the Central Mine? *A.* Yes. I was trucking mullock on the 600 level. Trucking mullock from the main shaft to the No. 1 stope about 20 feet from the Central boundary at the 700 level.
3957. *Q.* Does that stope open into the Central Mine? *A.* There was a gangway there into the Central at the 600.
3958. *Q.* At the time of the creep how far would you be from the boundary? *A.* About 100 feet. I was on the main drive going to the shaft between the mullock pass and the drive where we went into the tip on the central boundary.
3959. *Q.* Were you near the junction—they cross each other? *A.* Yes; four of us were working there, two empty trucks going out and we meet two full ones; there is just sufficient room to turn and pass each other. I was standing at the turn at the time.
3960. *Q.* That was about 100 feet from the boundary. What did you notice? *A.* A little wind and dust as well.
3961. *Q.* Did that wind blow your candle out? *A.* No; it was hanging on the laths behind the legs at that time. Then we got more wind and dust and our candles were blown out. That wind was much stronger than the first.
3962. *Q.* Did you hear a fall? *A.* I heard a rumbling.
3963. *Q.* In which direction? *A.* It sounded towards the Central Mine. It appeared to be at a distance from us. We could only hear the rumble, not a distinct fall.
3964. *Q.* If a fall had taken place on the boundary within 100 feet of you or the upper levels would you have felt anything? *A.* I would have felt a strong breeze.
3965. *Mr. Hall.] Q.* You have had no experience of a heavy fall? *A.* No.
3966. *Q.* You say the first you noticed was a little wind and dust, but did not put your candle out? *A.* Yes.
3967. *Q.* Did the first puff and the strong wind come from the same direction? *A.* Yes.
3968. *Q.* At that time, in October, there was no connection into the Central Mine? *A.* Yes, there was a gangway leading into the Central.
3969. *Q.* At that time—on the boundary could you get up through the stope from the 600 to the 500? *A.* Near the boundary we were always on the sill floor there.
3970. *Q.* Was anyone shifted in the South Mine, or any instructions given to them to be careful at 2 o'clock that morning? *A.* No, I never heard anything of it.
3971. *Q.* Did you hear anything about 2 o'clock in the morning? *A.* We heard nothing until we felt the breeze and heard the noise.
3972. *Q.* How long did it last? *A.* I could hardly say. About a few minutes.
3977. *Q.* Where was it this wind came from—which direction, through the gangway or the cross-cut? *A.* Both. We got wind down the pass and coming through the other cross-cut as well. The cross-cut from the mullock pass and from the drive leading into the Central boundary.
3974. *Q.* It would be coming two ways? *A.* Yes.
3975. *Q.* Somewhere from the west and somewhere from the north? *A.* It seemed to come down the pass and from the other direction. We always get the breeze through that mullock pass; every time we empty the pass we get the breeze and a little dust as well.
3976. *Mr. Edwards.] Q.* When you got the first puff of wind the pass was empty? *A.* Yes, we usually get it when it is empty.
3977. *Q.* You did not feel any effects of the creep? *A.* No.
3978. *Q.* Where did you have "crib" that night? *A.* Somewhere on the 600 level. I would not be sure.
3979. *Q.* There was no indication of any creep or the timbers talking? *A.* No, everything was quiet and solid.
3980. *Q.* Your mates, Weiser and Ferguson, what were they doing? *A.* They were filling their trucks at the time.

[Witness left.]

William Henry Weiser, called in, sworn, and examined :—

3981. *Commissioner.] Q.* What is your full name? *A.* William Henry Weiser.
3982. *Q.* What is your occupation? *A.* A mullocker.
3983. *Q.* Where have you been working recently? *A.* At the South Mine.
3984. *Q.* How long have you been employed there? *A.* About three or four years.
3985. *Q.* Have you mined anywhere previously? *A.* No.
3986. *Q.* You remember the 8th October last? *A.* Yes.
3987. *Q.* Where were you that night? *A.* On night shift in the 600-foot level. I was trucking from the mullock pass, tipping down the winze by the Central boundary.

Witness—W. H. Weiser, 25 March, 1903.

3988. *Q.* Can you remember anything happening? *A.* At about 3 o'clock, or a little before or after, we were trucking from the "Chinaman" down the winze. Four of us were trucking and running in pairs to the plat-sheet on the main line where you turn to go down the cross-cut to the Central boundary—about 100 feet from the boundary. While two of the truckers filled, the other two went out and tipped the mullock and came back and met at the plat-sheets, and waited for the others to go past on the turn. Simmons and I were with the last two trucks. When we came back the two mates had gone to get a drink, and while they were away I also went to get a drink, and a rush of wind came while I was there. Four or five minutes after that we went back to the winze.
3989. *Q.* Which way did you go? *A.* Along the drive.
3990. *Q.* From which direction? *A.* I could not tell you exactly which direction the wind came from; it came back from the north end from the Central boundary along the drive.
3994. Which way from the plat—north or south? *A.* From the north side.
3992. *Q.* Was it a strong wind? *A.* No, not the first gust.
3993. *Q.* You felt another gust? *A.* About three or four minutes later a strong gust came with a lot of dust.
3994. *Q.* Did they both come from the same direction? *A.* Yes.
3995. *Q.* Was there anything to alarm you? *A.* It gave us a start, and we thought there was something wrong.
3996. *Q.* What time was there between the two gusts? *A.* Three or four minutes at the most. The second wind was a long way stronger than the first one. Both brought dust, but not so much the first one as the second.
3997. *Q.* What did you do after the second gust? *A.* I went back to look where my mates were. They came out before me. They were not in the stope when I went back. I came out and went towards the west stope and met Colmer, and we went back to the "Chinaman" so as to get our coats and "Crib," and take them back to our mates. We were covered with dust, so we had a wash and went down to the 700 level after "crib."
3998. *Q.* Did you go to the "Chinaman" the second time? *A.* No, we did not go to the "Chinaman"; only a couple of sets away.
3999. *Q.* Were there any signs of a disturbance? *A.* We did not go to the boundary, and we did not hear anything.
4000. *Q.* Did you hear the timbers talking that night? *A.* No, not at all.
4001. *Q.* Nothing unusual? *A.* No.
4002. *Mr. Edwards.] Q.* How far was this winze from the Central boundary? *A.* About three or four sets.
4003. *Q.* Have you been in to the end? *A.* Yes, into the Central.
4004. *Q.* Everything was standing firm and secure at the winze? *A.* Yes.
4005. *Q.* Have you ever been near any fall of ground? *A.* I have never had any experience of a fall.
4006. *Q.* Did the first puff of wind put the lights out? *A.* It put my light out, and the platman's, but the second one put all the lights out.
4007. *Q.* You are in the habit of working with candles near the shafts when the cage is running;—has it had any influence on the candles? *A.* If you were standing close to the shaft—about 3 feet away from it—it would, perhaps, put the candle out, but back in the drive it would not have any effect on the candles.
4008. *Q.* You remained on the same level, and you had "crib" on that level? *A.* Yes.
4009. *Q.* How long did you remain there before you went to the 700-foot level? *A.* About an hour.
4010. *Q.* Did you hear any falling of ground? *A.* No.
4011. *Q.* What noise did you hear? *A.* Only the rushing of the wind.
4012. *Mr. Hall.] Q.* Where was the water where you had to go for a drink? *A.* To the plat of the main shaft.
4013. *Q.* You went some 400 odd feet to get a drink;—that is, you were 400 odd feet from the boundary of the Central mine? *A.* I could not say what distance it was. I went along the main drive.
4014. *Q.* Were you at the main shaft when the first wind came? *A.* Yes.
4015. *Q.* And it put your light out at the main shaft? *A.* Yes.
4016. *Q.* So you were some 400 feet further away than your mates, yet it put your light out and not theirs? *A.* Yes. They had theirs stuck close behind the logs. The platman was nearer to the shaft than I was.
4017. *Q.* When did you meet the shift boss, Colmer? *A.* That was ten minutes after the second fall.
4018. *Q.* Where were you when the second fall occurred? *A.* Still on the plat-sheets.
4019. *Q.* You told Mr. Edwards that the wind came from the Central boundary? *A.* It came along that drive from the Central boundary.
4020. *Q.* Does that drive go straight from where your mates were working to where you were standing? *A.* No, not straight.
4021. *Q.* Do you know that it makes two turns at almost right angles? *A.* It goes round gradually.
4022. *Q.* Are you prepared to say that the wind did not come down into that drive from the upper levels of the South Mine? *A.* No, I would not say that it did not come down from the 500 and 600 levels.
4023. *Q.* How long after the first puff of wind was it that you met your mates? *A.* Not more than ten minutes.
4024. *Q.* Did your mates accompany you back towards the "Chinaman" with the shift boss? *A.* Yes.
4025. *Q.* So then you would not be within 100 feet of the Central boundary? *A.* That is so.
4026. *Q.* And you did not, after feeling that first puff of wind, explore the timbers or the ground on this level close to the Central boundary? *A.* No.
4027. *Q.* When did you first explore these timbers in towards the Central boundary—since the creep? *A.* I have been down the cross-cut to the baulk but not further, nearly half-way to the boundary. We could not see any crushed timber there; everything was standing all right.
4028. *Q.* You did not continue the work at the winze; could you not get there;—the baulk was put there? *A.* I could not say why.
4029. *Q.* Do you not know that since the October creep that ground for about 40 feet from the Central boundary is crushed and could not be got at? *A.* I do not know.
4030. *Q.* You heard no rumbling sound or crushing of timbers? *A.* No.

[Witness left.]

Joseph Ferguson called in, sworn and examined :—

4031. *Commissioner.*] *Q.* What is your name in full? *A.* Joseph Ferguson.
 4032. *Q.* What are you? *A.* A mullock.
 4033. *Q.* Where are you working? *A.* In the South Mine.
 4034. *Q.* How long have you been employed there? *A.* About seven months.
 4035. *Q.* Have you had any previous mining experience? *A.* No.
 4036. *Q.* On the night of October last you were working on the night shift;—do you remember anything occurring that night? *A.* Yes, a fall.
 4037. *Q.* Where were you working? *A.* At the 600 level, at the mullock winze about 30 feet from the boundary. I was in the “Chinaman,” right underneath the winze; we were trucking from the pass to the winze.
 4038. *Q.* How far was the pass from the boundary? *A.* Thirty feet.
 4039. *Q.* How far would you have to go to get to the Central boundary? *A.* About 150 feet.
 4040. *Q.* You felt some wind that night? *A.* Yes; about 3 o'clock. There was a puff of wind—a short puff through the pass; the pass was just about empty; that was nothing unusual. After that a stronger puff of wind came. The second lot came down the pass. I walked out to the end of the drive, and I met it. I was going towards the shaft. It came out along the drive and back.
 4041. *Q.* Which direction do you think it came from—north or south? *A.* From a northerly direction.
 4042. *Q.* The second wind was sufficient to frighten you? *A.* Yes. I went back to the “Chinaman,” and came out again. There was dust, and I came out to the end of the drive and stayed until the wind went down. I heard a rumbling noise back towards the Central boundary; it seemed to be above our heads. I heard nothing of any fall.
 4043. *Mr Edwards.*] *Q.* How soon before the lights were blown out were you at the winze on the Central boundary? *A.* A quarter of an hour.
 4044. *Q.* Was everything solid and quiet? *A.* Yes.
 4045. *Q.* Did you go as far as the plat-sheets after the first puff of wind? *A.* We did not go as far as that.
 4046. *Q.* Where was Harris? *A.* He was on top of the “Chinaman.”
 4047. *Q.* You stayed on the level to have “crib”? *A.* Yes.
 4048. *Q.* Did that rumbling appear to be close over head or a long way off? *A.* A long way off.
 4049. *Mr. Hall.*] *Q.* The first puff of wind came down the mullock pass, and it leads right up above your heads to the above level? *A.* Yes.
 4050. *Q.* Where were you when the second puff came? *A.* We were standing at the time right underneath the mullock pass.
 4051. *Q.* Which way did it come, from the mullock pass or from the plat-sheets? *A.* From the mullock pass.
 4052. *Q.* The second puff came down the pass, too? *A.* Yes; the whole of it never came down.
 4053. *Q.* You say some of it did not come down the pass;—do you mean that some of it came from the direction of the plat-sheets? *A.* Yes.
 4054. *Q.* Do you know if there is a connection at about the point where these plat-sheets pass the level of the stopes? *A.* I could not say.
 4055. *Q.* You had “crib” on the level? *A.* Yes; by the shaft, about 500 feet in from the boundary.
 4056. *Q.* The rumbling noise seemed above your head, and not towards the Central boundary;—you could not say whether it was 60 feet or 160 feet, but it was some distance above your heads? *A.* Yes.

[Witness left.]

George Henry Harris, called in, sworn, and examined :—

4057. *Commissioner.*] *Q.* What is your occupation? *A.* A trucker.
 4058. *Q.* Working where? *A.* In the South Mine.
 4059. *Q.* How long have you been employed there? *A.* About ten months.
 4060. *Q.* Have you been working elsewhere at the same occupation? *A.* Yes; in other mines for about nine years.
 4061. *Q.* You remember the night of 8th October last? *A.* Yes.
 4062. *Q.* What level were you on? *A.* I was on the 600 level, trucking from the “Chinaman” into the winze near the Central boundary.
 4063. *Q.* How far was the winze from the Central boundary? *A.* About 20 feet.
 4064. *Q.* How far was the “Chinaman” from the winze? *A.* About 150 feet.
 4065. *Q.* That would bring it about 170 feet from the boundary of the Central Mine? *A.* Yes.
 4066. *Q.* It was not a straight gangway between the two? *A.* No; we had to go round a corner.
 4067. *Q.* Did anything occur on this morning? *A.* Yes; at about 3 o'clock in the morning.
 4068. *Q.* How did you know the time? *A.* By the time we went to “crib” it was somewhere about that. I noticed a slight puff of wind come down the pass; I was at the mouth of the pass.
 4069. *Q.* Was that anything unusual? *A.* No; we often have that when barring down the chute. Then a second rush of wind came from the north—the Central way—from the direction of the winze where we were tipping. The second was a lot stronger than the first, and we had our lights blown out. There was plenty of dust.
 4070. *Q.* When the second puff of wind came, who was with you? *A.* Ferguson.
 4071. *Q.* I suppose the second was enough to alarm you—you concluded that something was wrong;—did you hear any noise? *A.* I heard a slight noise in the distance, coming from the direction in which we were tipping.
 4072. *Q.* Could you say whether it was the same level below or above you? *A.* It was not on the same level, it must have been somewhere above. A rumbling sort of noise.
 4073. *Q.* What did you attribute it to? *A.* I thought it was a fall somewhere. We waited for some time and then went to the plat.
 4074. *Q.* Where were your mates then? *A.* Ferguson went out with me, Weiser was at the shaft, and Simmons was near me when it started, but I never saw him after till he came to the plat. When we got to the shaft we met the shift boss, and reported it to him. He knew before.

4075.

Witness—G. H. Harris, 25 March, 1903.

4075. *Q.* Did you go back to work that night? *A.* Not at the same place. We did not go back to look; we were quite satisfied.
4076. *Q.* Have you been back since? *A.* Yes; about a fortnight after.
4077. *Q.* Could you get back to the pass? *A.* No; not to where we were tipping.
4078. *Mr. Edwards.] Q.* The noise you heard, would that give you any idea of the distance it was away? *A.* It seemed far away.
4079. *Q.* You were in at the winze shortly before, was everything solid there? *A.* Yes; I was there about seven or eight minutes before.
4080. *Mr. Hall.] Q.* You did not notice any dust;—Simmons says there was a little wind and dust? *A.* I did not see any dust. He was not in with me.
4081. *Q.* Where was Simmons, in the same level and stope? *A.* Yes.
4082. *Q.* Where were you standing when the second puff of wind came? *A.* At the "Chinaman," as soon as the second one came I went away.
4083. *Q.* From where you were standing, if the wind came from the north, it would have to pass through some hundreds of feet before it came from the Central? *A.* I do not know the distance.
4084. *Q.* There is solid ground to the north of that pass? *A.* It is solid ground behind the "Chinaman."
4085. *Mr. Edwards.] Q.* You waited for Colmer, and he sent you to the 700-foot level? *A.* Yes.
4086. *Q.* You are accustomed to work about shafts where the cages are running up and down;—what influence would the wind caused by the cages have on the candles? *A.* It does not have any effect.
4087. *Q.* How close would you require to be to shaft before the wind from the cage would affect it? *A.* About 3 or 4 feet.

[Witness left.]

Thomas John Colmer, called in, sworn, and examined:—

4088. *Commissioner.] Q.* What is your name? *A.* Thomas John Colmer.
4089. *Q.* You are shift boss on the South Mine? *A.* Yes.
4090. *Q.* What is your mining experience? *A.* About forty-two years since I started working underground.
4091. *Q.* What experience have you had on Broken Hill mines? *A.* About twelve or thirteen years.
4092. *Q.* How long have you been working in the South Mine? *A.* About seven years. I have been shift boss for five years.
4093. *Mr. Edwards.] Q.* You were working in the Central Mine in 1892? *A.* Yes.
4094. *Q.* At what level were you working? *A.* Between the 300 and 350.
4095. *Q.* Do you remember a collapse that took place in the Central? *A.* Yes.
4096. *Q.* How many floors below the 300 were you? *A.* Four. We were securing a stope.
4097. *Q.* Had the stope been showing signs of weakness? *A.* Yes; the men had been turned out of it because it was talking so bad. We were sent in on Monday afternoon to try and fix the stope up.
4098. *Q.* When did the fall take place? *A.* Some time just before "crib" on Monday.
4099. *Q.* Could you say whether the first fall occurred in the Central or South Mine? *A.* The first part came away in the Central. When we saw her coming away on the south end of the stope we went to the 350 to get out of the stope. She was up to the 200, and finally came through at the surface. The stope was about 80 feet, and between 30 and 40 feet wide.
4100. *Q.* What height from the level? *A.* It is 50 feet from the 350 to the 300, and then she went out to the 200, and finally went through to the surface about eighteen months or two years afterwards. She finally worked her way through to the surface.
4101. *Q.* That stope collapsed, and that ultimately worked away and left the hole you see at the present time? *A.* Yes.
4102. *Q.* You went in from the Central to the South Mine? *A.* Yes; we went in through there on the Saturday previous to the collapse.
4103. *Q.* Which mine was talking most? *A.* She was talking most in the Central, by far.
4104. *Q.* I suppose you could see whether the movement originated in the Central or the South? *A.* No, you could not see that.
4105. *Q.* The next movement was at the 400 level in the South Mine in 1895;—what was the movement owing to? *A.* We could not say exactly. That was the slide off the hanging wall.
4106. *Q.* There was a stope at the 400 level;—that stope was filled with mullock? *A.* It was filled up a good bit.
4107. *Q.* Then this clip came off the hanging-wall, and the effect of the fall was to crush the stope? *A.* Yes.
4108. *Q.* And some men were killed in the level? *A.* Yes, the rush of the wind killed them.
4109. *Q.* What distance were they from the fall? *A.* From where they came down to the level it would be about 50 feet.
4110. *Q.* Do you know how far along the level they were found? *A.* I cannot say exactly, but I should say about 280 feet.
4111. *Q.* You know the foot-wall stope at the 400-foot level that runs into the boundary of the Central? *A.* Yes, the east stope; there is solid ground standing there.
4112. *Q.* Do you know if that stope was ever mullocked up? *A.* Yes, we mullocked up three floors of it above the sill. She was angled and bevelled from top to bottom, and where we saw pressure we put in baulks.
4113. *Q.* Can you tell us why the mullock was not carried up to the top set? *A.* We had a cage there and we could not run it any higher—the mullock was landed as high as we could raise it with the cage.
4114. *Q.* The gangway was left open, and were the other sets mullocked? *A.* Yes.
4115. *Q.* How long ago was that mullocking finished? *A.* I could not say. Some years ago.
4116. *Q.* On the 500 level of the South Mine there is a stope there in which an accident took place in 1901;—did you know that stope prior to the accident of 1901? *A.* Yes.
4117. *Q.* How high was it mullocked up? *A.* Ten floors solid.
4118. *Q.* Was there a cavity there somewhere? *A.* That was towards the Central, and a cavity to the south end of the stope where the men were killed. That came off the hanging-wall.

4119. *Q.* After the accident, in what condition was that stope left? *A.* I think it was two sets from the end of our stope, otherwise she was timbered to the back.
4120. *Q.* They were working from the hanging-wall to the footwall? *A.* Yes; they were working under the hanging wall side.
4121. *Q.* Could you tell us how far this stope was from the Central boundary on the 500-foot level? *A.* There was solid ground left there, but I could not tell the exact distance.

[The Commission adjourned till Thursday, 26th March, 1903, at 10·30 a.m.]

THURSDAY, 26 MARCH, 1903.

[The Royal Commission sat at 10·30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability.)

Mr. W. J. Wise, Secretary, Barrier Branch Amalgamated Miners' Association, appeared to represent that Association.

James Hebbard being recalled, and re-sworn:—

4122. *Commissioner.*] *Q.* I understand you wish to make some explanation with regard to your answer to Question No. 3814?

The question was read as follows:—

“*Q.* What you do not agree with is in reference to the Central Mine? *A.* I know the old creep on the South Mine boundary, and I know the influences in the South Mine are very much larger than in the Central, and that the movements disclosed by the recent creep are much larger in the South than in the Central.”

A. At the time that question was asked I understood we were talking about the movement on the surface, and I certainly meant it to be understood that the influences of the creep on the Central Mine were bigger on the surface of the South than the Central.

4123. *Mr. Edwards.*] *Q.* It had no reference to underground? *A.* No, I was referring to the surface.

Thomas John Colmer, examination continued:—

4124. *Mr. Edwards.*] *Q.* In speaking of the 500 level, you said yesterday that part of that stope was mullocked tight up for ten floors at one part, and full twelve floors at another part? *A.* On the east side she was full twelve sets.

4125. *Q.* Do you know if the stope on the 600 level at the Central boundary was open and in full working order up to the time of the October creep? *A.* No, she was not. We stopped working in that stope after the men were killed in May, 1901.

4126. *Q.* Do you know if there was an opening into the Central working? *A.* Yes.

4127. *Q.* Do you know the height of their stope? *A.* I could not tell you. They worked right through up to our boundary. I have been in through from the 600 level.

4128. *Q.* There was a gangway right from one stope to the other—an open gangway? *A.* Yes; because they trucked the mullock into the 700 stope.

4129. *Q.* Do you remember the night of the creep—October 8th? *A.* Yes.

4130. *Q.* Four men were trucking on that level, trucking the mullock to the winze going to the 700 level? *A.* Yes.

4131. *Q.* What distance is that winze from the Central boundary? *A.* From 20 to 30 feet.

4132. *Q.* Up to the time of the October creep was that stope standing solid? *A.* We had no trouble with it until the Central party started to take away the pillar on the boundary where they broke through.

4133. *Q.* How long before the creep did they break through? *A.* I do not know exactly; some months before.

4134. *Q.* Since they broke through has that stope been talking? *A.* Not that I know of.

4135. *Q.* Right up to the time of the October creep it was standing solid? *A.* When they broke through and got a set or two out we had to build timbers on our side to take the weight.

4136. *Q.* On that night Simmons, Weiser, Ferguson, and Harris were trucking, and you went up on to the level shortly after the creep and sent them to the 700 level? *A.* Yes.

4137. *Q.* Between that winze and the 700 level what was standing;—was there any open ground? *A.* It was timbered up.

4138. *Q.* From the 600 to the 700 there was the winze through which you threw the mullock—between the South and the Central? *A.* The Central were working their part out.

4139. *Q.* These truckers were throwing the mullock down the winze;—will you tell us the nature of the ground? *A.* Ours was up to the Central boundary two floors high, and she went away where we had the winze through—all solid ground about 18 or 20 feet from the bottom to the level.

4140. *Q.* At the time of the creep where were you? *A.* At the 800 level.

4141. *Q.* What effect did it have down there;—what did you experience? *A.* Two rushes of wind.

4142. *Q.* With what interval of time between the two? *A.* Four or five minutes.

4143. *Q.* Was the first rush heavy or light? *A.* Light; the second one was heavy.

4144. *Q.* From what direction did the wind come? *A.* From the Central—north.

4145.

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4145. *Q.* Did it have any effect on the lights? *A.* The second one left us in the dark; the first one did not.
4146. *Q.* Up to that time you heard no creaking or talking in the South Mine? *A.* No. I had been through the 600, the 700, and the 800 levels.
4147. *Q.* No warning was given? *A.* No, none whatever.
4148. *Q.* Where were you on the 800 level when the rush of wind came? *A.* I was in the stope. It was eight minutes to 3 o'clock. I went out to the plat from the stope, coming south, and leaving the Central, and just as I got in the stope the first rush of wind. I got out and went to the double road, and just as I got there I heard the second rush. I whipped back to the plat again.
4149. *Q.* How far would you be from the Central boundary when the second rush of wind occurred? *A.* Between 300 and 400 feet; that would be around the drive.
4150. *Q.* From where you were, do you think that if a heavy fall had taken place between the 400 and the 700 levels that you would have heard it? *A.* I would be sure to hear it from where I was.
4151. *Q.* You heard no rumbling noise? *A.* None at all.
4152. *Q.* No noise of fall of ground or creaking of timbers? *A.* Not until after the second rush of wind.
4153. *Q.* What did you hear after? *A.* I heard nothing at the 800 level any more than ordinary weight coming on the timbers and the timbers creaking. That was away north from where I was. Nothing of a rush.
4154. *Q.* I suppose you have had experience of falls where the stopes break away the paddocking laths; they will break under pressure, and the mullock will run out? *A.* Yes.
4155. *Q.* Did you ever know any stope to empty itself by the breaking of the paddocking laths? *A.* No.
4156. *Q.* What follows as a rule? *A.* When it runs from one stope to the other it will form a base and go up on a base just as you see a mullock-tip, and it will choke itself.
4157. *Q.* After leaving the 800 level, you went up to the 600 where these men were working; you sent them to the 700 level? *A.* When I found things all right at the 800 level, knowing I had four men at the 600 level, I went up to see if they were all right. I sent them to the 700 level, and I went in around the drive as far as where the baulk is standing, and then I came back and saw the drive was all right there.
4158. *Q.* How far is the baulk from the Central boundary;—how far did you go? *A.* I was within 40 or 50 feet of the Central boundary.
4159. *Q.* How long was it after the creep that you left the 800 level? *A.* About twenty minutes.
4160. *Q.* And when you got to the men on the 600 level, what time would that be after the creep? *A.* About half an hour.
4161. *Q.* You have been along the drive since where the baulk is? *A.* Yes, several times.
4162. *Q.* Did you find that any special crushing of timbers had taken place? *A.* It is standing now just the same as it was that night.
4163. *Q.* Have you been up as far as the winze since? *A.* No.
4164. *Q.* Do you know if you could get in? *A.* They could crawl in under the baulk.
4165. *Q.* You know the whole of the workings of the South Mine on the Central boundary—from what level to what level—at the present time? *A.* From the 400 down to the 800. I know pretty well what she is from the 300 down, but more particularly from the 400 down.
4166. *Q.* Do you know of any cavity in the South Mine that would take anything like 10,000 or 11,000 yards of mullock? *A.* No, not a quarter of it; I know of only two cavities that would take any dirt at all, and that would be on the north; that is on top of the 600 stope, but no pressure could force mullock there.
4167. *Q.* Have you been into the stope since the creep? *A.* Yes.
4168. *Q.* Is there any difference in the cavity now? *A.* You could not get into the top part; you could get into the 12th floor, but not on the Central boundary.
4169. *Q.* I am talking about the south end? *A.* I have not been in there. I do not know what condition it is in.
4170. *Q.* Assuming the whole of it was open, would it take 10,000 or 11,000 cubic yards? *A.* No, I do not think it would, because our timber is in, and she would choke herself.
4171. *Q.* How far is your main shaft from the Central boundary? *A.* About 400 to 430 feet in a straight line across the country.
4172. *Q.* It has been sworn here that at a distance of about 450 feet in from the shaft the lights were blown out by the cage ascending and descending in the shaft? *A.* The cage running would not affect the lights 10 feet from the shaft, even on the plat.
4173. *Q.* In your experience, what distance would the lights be influenced by the draught from the cage? *A.* Our platmen stick their lights in the divisional piles, and that is not more than 3 feet from the shaft, and they are not affected.
4174. *Q.* Do you remember any filling having been done by the Central Mine into your stopes in 1901? *A.* Yes, from the 600 to the 700 feet levels.
4175. *Q.* Do you know how many sets they filled? *A.* No.
4176. *Q.* After they knocked off work, what did the South do? *A.* We filled her up until the 10th floor was reached, and then she was all angled and bevelled—that is, from the 700 to the 600. A piece of ground was left between the bottom of our level that extended from the stope about 18 or 20 feet.
4177. *Q.* That is the solid piece of ground you told us about? *A.* Yes.
4178. *Q.* From the 700 to the 800, is it all solid ground? *A.* No, not on the Central side. On our side there is a block of ground, barring a piece of ground four sets long and two sets wide. You can go all round the stope, barring this crush that is down in the middle.
4179. *Q.* Do you know any cavities on the boundary at all that would take the mullock which has left the Central? *A.* No; only at the 500 there was a bit of a cavity along where the men were killed.
4180. *Q.* If a fall had taken place at the 500 level, would you have heard it at the 800 level? *A.* No, not at the 800 level; not from the 500 to where I was. If it occurred in the 600, I would have heard it, but not from the 500.
4181. *Mr. Hall.] Q.* The first creep which you told us of which took place on the boundary of the Central and the South was the Central coming away on the south end of the stope; that is the creep of 1891? *A.* Yes. In the Central creep it was coming away from the south end of the stope.
4182. *Q.* The south end is closed on the boundary of the South and Central? *A.* There was a communication through.

4183. *Q.* The two mines were working on the level practically up to the boundary? *A.* Yes.
4184. *Q.* It was impossible to say whether that movement was in the South or Central? *A.* No; it was not possible, because we were trying to take up the broken timbers.
4185. *Q.* Were they not in the South Mine doing the same thing? *A.* There were no men working in the South.
4186. That communicated with the hole that is still left between the South and Central Mines on the surface;—that hole was the result of the creep that took place at that time? *A.* Yes.
4187. *Q.* About three parts of that sinking on the surface is on the south side of the boundary? *A.* I am not positive.
4188. *Q.* You knew the ground well where this creep in 1895 occurred—where this fall occurred by which eight men were killed at the 400 level;—that was a big slide off the hanging-wall? *A.* At the 400 level the men were killed.
4189. *Q.* Did that fall cause one of the cavities which you mentioned to Mr. Edwards just now? *A.* No.
4190. *Q.* Was that fall there ever filled up in any way after the disaster? *A.* No.
4191. *Q.* Has any work been done there since? *A.* No, not any more than leaving it secure.
4192. *Q.* Has it been possible to go in since the disaster? *A.* No one goes there at all. We could have gone up the north end of it.
4193. *Q.* So far as you know, were any measurements taken of the cavity? *A.* I do not know anything about it.
4194. *Q.* That stope where the men were killed is distinct from the stope on that level that runs right to the boundary—the stope where the fall occurred;—that is not connected with the stope that runs into the Central boundary? *A.* No.
4195. *Q.* How much ground is there in between the two? *A.* I do not know. There could not be much.
4196. *Q.* When were you last in the stope before the October creep? *A.* Perhaps four months; it might be a little more.
4197. *Q.* And the new stope at the same level that goes to the boundary;—when were you in that stope before the creep? *A.* Just about the same time.
4198. *Q.* Would it be possible if a heavy fall were to take place back of these old stopes, and the old stope on the 400 level, and break through the intervening ground into the new stopes? *A.* I do not think it is possible.
4199. *Q.* If a fall occurred near the surface, would it not be possible to break through into the old stope at the 400 level and through the intervening piece of ground? *A.* No, I do not think so.
4200. *Q.* At the 500 level I think you told us there was about 30 feet of ground on that level—solid ground—between the stope and the Central boundary? *A.* Between 20 and 30 feet.
4201. *Q.* Two or three sets below the 500 level, does that south stope go right up to the Central boundary? *A.* Not up to the Central boundary that I am aware of.
4202. *Q.* Is the 13th floor within one set of the Central boundary? *A.* Not that I am aware of.
4203. *Q.* Do you deny that is so? *A.* I am not certain of it.
4204. *Commissioner.* *Q.* Do you know of your own knowledge? *A.* I do not know the distance between them.
4205. *Mr. Hall.* *Q.* On the 600 level, is the stope right up against the boundary? *A.* Yes; we are supposed to be on the boundary.
4206. *Q.* And the 2nd floor above, is it? *A.* It is supposed to be.
4207. *Q.* At the 3rd floor, are the workings carried to approximately one set from the boundary? *A.* Our stope was cut up to the tenth, and so was theirs.
4208. *Q.* When you got to the tenth floor, was there a solid? *A.* Yes; where the men were killed, about the 24th May.
4209. *Q.* That was about 1897, a slip off the foot-wall at the 10th floor? *A.* Not that I am aware of.
4210. *Q.* Was there not a slip off the footwall which caused the men to be working there—the men who were killed? *A.* We had a bit of mullock slip off the footwall; it slipped down, and a bit of friable ore came down with it—nothing to harm anything.
4211. *Q.* Would not that indicate to you that the ground was dangerous? *A.* No, not a bit of it.
4212. *Q.* How long had the men been working there trying to secure it? *A.* They might have been six months or a little over.
4213. *Q.* Did not the further fall that occurred in May, 1901, bring the backs down through the 500 level? *A.* No; because the stope was timbered up.
4214. *Q.* What had happened in that 600 stope to cause the work that these men were doing at the time of the fall of 1901? *A.* Portion of the hanging-wall side came away.
4215. *Q.* Is it not a fact that there had been a fall at about the 10th floor in the 600 level, and that the men had been at work about two years trying to take up the backs? *A.* Not for two years.
4216. *Q.* What was the effect on the mine above the 600 level;—it broke down the stope? *A.* It brought down a set or two at the top, but not the stope.
4217. *Q.* Did that slip off the hanging-wall cause a cavity? *A.* Yes, for a time, until we picked her up.
4218. *Q.* Had that been picked up at the time of the accident in 1901? *A.* I believe so. The stope was not picked up altogether; if it had it would not have killed the men.
4219. *Q.* It has not been touched since? *A.* No.
4220. *Q.* Have you had trouble since they started to take away the timber in the Central? *A.* No. We had trouble on the boundary when they started to cut through the pillar, but our stope came away on the underlay. When they cut through, the pressure came on our timbers; and when they came to tip the mullock we had to build up to keep it off. No ground came in there before.
4221. *Q.* Do you know whether that ever did take place before the Central pillar was started at all—the place where you put the baulk up;—when did they start to work on the 600 level? *A.* I do not know when they started to work there. We had no trouble with our stope until they came there.
4222. *Q.* Can you say when the south stope on the boundary was beaten out? *A.* I do not know the date, or anything near it. We were working on top of that stope on the 600 level when the accident took place on the north end. Our stope was timbered to the back. We had not worked to the boundary then. We were working towards the boundary.

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4223. *Q.* After you heard the second rush of wind you heard the talking of timbers? *A.* Yes; I heard it at the 800.
4224. *Q.* Were the timbers creaking up above? *A.* Above the 800 level—in the stope towards the 700 level.
4225. *Q.* How long did it continue? *A.* I did not wait to hear.
4226. *Q.* Did you hear it when you were on the 600 level? *A.* No; I heard nothing of creaking at the 600; it had ceased. That was twenty minutes after the rush of wind.
4227. *Q.* Was anyone with you when you went to within 40 or 50 feet of the Central boundary at the 600 level? *A.* No.
4228. *Q.* How much would the stope contain between the 500 and 600 levels;—would it contain 10,000 or 11,000 cubic yards? *A.* I could not say.
4229. *Q.* Then, what do you mean by saying that if it was open it would not take 11,000 yards? *A.* Because it was timbered up.
4230. *Q.* Do you know if the whole of the mullocking was completed by the South after the Central knocked off;—was that all filled up? *A.* As far as practicable. What was not filled was timbered and angled and bevelled.
4231. *Q.* Have you any idea of how much mullock will skrink in 100 feet? *A.* I have no idea. Some will skrink more than others.
4232. *Mr. Wise.*] *Q.* Have you had experience of creeps or collapses? *A.* Yes; one in Block 11.
4233. *Q.* Did you ever know of a stope worked on the square-set system giving way without any previous warning? *A.* No.
4234. *Mr. Edwards.*] *Q.* Do you remember when the men were killed through the wind caused by the fall at the 400 level—that was in 1895? *A.* Yes, I remember it.
4235. *Q.* One of these truckers was standing in the main drive about 150 feet from the Central boundary at the 600 level at the time of the last crush; if a fall had taken place from the 400 level to the 500 level, or from the 500 level to the 600 level, bringing down old stopes and broken ground, what effect would the rush of air have on him? *A.* It would blow him away, and he would not be alive to tell the tale.
4236. *Q.* Would a fall produce a big rush of air in that gangway? *A.* Yes.
4237. *Commissioner.*] *Q.* You have had experience of creeps? *Q.* Yes.
4238. *Q.* Can you say what part of a mine they generally occur in;—are they more likely to occur in footwalls, hanging walls, or on the boundaries? *A.* It all depends. Sometimes a slip away on the footwall will bring down the backs. It all depends on how you are working. We had a big fall in Block 11 that came on the middle, owing to bad ground and a general pressure on the timbers straight down.
4239. *Q.* Do you not think there should be some special method of mining on the boundaries? *A.* If a pillar is left on the boundary by two mines, that would have a considerable tendency to keep the ground together between the two mines. If the ground were heavy it would steady it.
4240. *A.* A pillar of friable ore left on the boundary—of what value would that be? *A.* Twenty-five feet of it would be better than all timber.
4241. *Q.* But the pillar could not be left on the boundary for ever? *A.* Well, you could fill up your mine to it and take it out after.
4242. *Mr. Edwards.*] *Q.* Would a pillar of 25 or 30 feet keep up more than a mullocked-up stope? *A.* Yes; because it would be in its native state. If it was left in its native state it would be better than timbering.

[Witness left.]

Richard Bennetts, called in, sworn, and examined:—

4243. *Commissioner.*] *Q.* What is your name? *A.* Richard Bennetts.
4244. *Q.* You are shift boss in the South Mine? *A.* Yes.
4245. *Q.* What mining experience have you had? *A.* Over thirty years.
4246. *Q.* How long in Broken Hill? *A.* Sixteen years, and before that I was at the Wallaroo Mines.
4247. *Q.* How long have you been in the South Mine? *A.* Seven or eight years, and I have been shift boss for about five years.
4248. *Q.* What other mines before the South? *A.* Block 11, Block 12, Block 13, and Block 14, and the British Mine.
4249. *Q.* Were you ever in the Central Mine? *A.* No.
4250. *Mr. Edwards.*] *Q.* Do you know the stope on the 400 level on the Central boundary in the South Mine? *A.* Yes.
4251. *Q.* Was there some mullocking done there by Mayne and Bone about three or four years ago? *A.* Yes.
4252. *Q.* When it was completed, how was it left? *A.* All filled as well as could be for about four floors.
4253. *Q.* What was done with the floors above that—every set was mullocked with the exception of the top set? *A.* As far as I know.
4254. *Q.* What was done with regard to the top one? *A.* It was all angled and baulked.
4255. *Q.* Could anything more have been done to make that stope more secure? *A.* I do not think there could.
4256. *Q.* That is the stope that runs through to the Central boundary? *A.* Yes.
4257. *Q.* Do you know anything about the old stope about the back of that? *A.* No; I know nothing of it.
4258. *Q.* You know the stope from the 600 to the 500 where Bennetts and Edwards were killed in 1901? *A.* Yes.
4259. *Q.* How was that stope left;—how many floors were there in it? *A.* It was filled up ten floors on the hanging-wall side, then twelve floors on the footwall side, and mullocked as well as could be.
4260. *Q.* Was it mullocked-up in the ordinary way, and quite sufficient to go on working again? *A.* Yes.
4261. *Q.* Was there any cavity left in that stope? *A.* A little.
4262. *Q.* On what side? *A.* On the footwall side, towards the south side of the stope.
4263. *Q.* Between that cavity and the Central, is this timbered ground mullocked-up? *A.* As high as the twelve floors; the rest timbered pretty well right up to the Central boundary.
4264. *Q.* Was it timbered in the ordinary way, or were special timbers put in? *A.* Nothing particular about it.

4265. *Q.* When were you through that stope last? *A.* I could not say; it is a long time ago. No men have been working there.
4266. *Q.* Do you know the stope from the 700 level to the 600 level where the Central people put some mullock; the mullocking by the Central was started in May, 1901;—was anything done by the South Mine to finish the mullocking of that stope? *A.* We sank another little winze and filled her up.
4267. *Q.* I believe the mullock pass from the surface was then completed, and you filled her up with mullock that you sent down from your own mine? *A.* Yes.
4268. *Q.* Going back to the 500 level, do you know what solid ground there is between the crushed-in stope and the Central boundary? *A.* No; I think it is pretty well on the boundary.
4269. *Q.* Do you think there is as much as 30 feet between? *A.* I do not know.
4270. *Q.* From the 800 to the 700, what stope is there there? *A.* There is a stope on the north end, and within two sets of the 700 on the north end.
4271. *Q.* How high is it mullocked up? *A.* To the 10th floor; square sets.
4272. *Q.* At the time of the creep in October, where were you? *A.* I was at home that night.
4273. *Q.* Have you been through the different levels since the creep? *A.* I have been through the stope since on the 800. You could get in as far as the tenth floor, and up two sets more behind the mullock. There are some crushed timbers there, about four sets long and two sets wide, close to the Central boundary. The set was a set or two from the boundary, and you could go round the back of it.
4274. *Q.* That is from the 800 to the 700; now from the 700 to the 600;—did you go through the stope after the creep? *A.* No.
4275. *Q.* From the 600 to the 500—when were you there last? *A.* I was up there last Saturday.
4276. *Q.* What did you see when you were there? *A.* I went up to near the 500 level. The stope was crushed down, but the back was solid ground.
4277. *Q.* How far back was the crushed timber? *A.* We could not see the timber. The ground crushed the timber down.
4278. *Q.* Could you say what was the nearest point to the boundary you reached? *A.* I should say about 40 or 50 feet.
4279. *Q.* Did you notice any timber going up? *A.* The baulk was there; that was in position.
4280. *Q.* How far would that be from the boundary? *A.* On the south end of the stope; about 70 feet from the boundary.
4281. *Q.* Do you know of any cavity existing between the South and Central boundary before the creep of October last? *A.* No.
4282. *Q.* Do you know, on the 600 level, when the Central worked up to the boundary there, did you see any effect on your timbers when they came up to your boundary? *A.* No, not much.
4283. *Q.* After the Central cut away the pillar, did you notice anything? *A.* No.
4284. *Q.* Who was in charge of that ground—Colmer or you? *A.* Colmer was.
4285. *Mr. Hall.] Q.* You are a shift boss, and hold the same rank in the mine as Colmer;—he is not over you in any way? *A.* No.
4286. *Q.* At the stope on the 400, did that stope work right out to the old opening at the 350? *A.* Yes.
4287. *Q.* How long was that stope on the 400 worked out before it was completely mullocked by Mayne and the others? *A.* It was not worked out; we were working and mullocking at the same time.
4288. *Q.* There is another stope, known as the old stope, on the 400 level;—when was that stope done? *A.* I do not know; it was before my time.
4289. *Q.* From the 600 up to the 500, was that mullocked up as soon as it was stripped? *Yes, working at it all the time. It was being mullocked while being worked.*
4290. *Q.* Do you know anything of a slip on the footwall of that stope between the 500 and 600 levels and crushed the timbers about ten floors up? *A.* No.
4291. *Q.* Do you know what work the men were engaged in doing at the time of the accident in 1901? *A.* They were stoping.
4292. *Q.* Do you know what work was being done on the south end? *A.* They were putting in stringers and trying to pick up the back.
4293. *Q.* When did that fall occur from that back—the original fall? *A.* There was a fall there. I know it was not much. We had these men there to secure it and take it up. I am not aware that it did much harm.
4294. *Q.* Did not a movement occur about the 10th floor in that stope? *A.* Yes; about the 13th or 14th floor.
4295. *Q.* Did not that crush the stopes from the 10th floor? *A.* No; it did very little harm.
4296. *Q.* Did it not leave the back open and unsupported? *A.* Yes.
4297. *Q.* Have you any idea of the shrinkage of mullock? *A.* No.
4298. *Q.* From the 600 to the 500 level, has any work been done on the Central boundary since the accident of 1901? *A.* No.
4299. *Q.* From the 700 to the 600, you could get in there before the creep of October? *A.* Yes.
4300. *Q.* How far could you get in from the boundary;—was it not filled up in 1901? *A.* Yes.
4301. *Q.* Could you get in to the Central boundary through the stopes? *A.* You could not get through to the Central.
4302. *Q.* You had not been there for some time before October;—how long before the creep? *A.* About a week.

[Witness left.]

William Burnett Driscoll, called in, sworn, and examined:—

4303. *Commissioner.] Q.* What is your full name? *A.* William Burnett Driscoll.
4304. *Q.* You are a shift boss in the South Mine? *A.* Yes.
4305. *Q.* How long have you been in that position? *A.* About two years.
4306. *Q.* What mining experience have you had? *A.* Over twenty years; about thirteen or fourteen years on Broken Hill.
4307. *Q.* How long have you been in the South Mine altogether? *A.* Over four years this last time; but I was there before. 4308.

Witness—W. B. Driscoll, 26 March, 1903.

4308. *Q.* Have you worked in any other mines in Broken Hill? *A.* I worked in the Central for about a week.
4309. *Mr. Edwards.] Q.* Do you know the stope on the 400 level, in on the Central boundary—the east stope? *A.* Yes.
4310. *Q.* That is where Mayne and Bone were mullocking? *A.* Yes, with a winch.
4311. *Q.* Do you know if that was mullocked up by them about three or four years ago? *A.* Yes.
4312. *Q.* To what height was it mullocked? *A.* About four or five floors.
4313. *Q.* How high is the stope there? *A.* About five floors.
4314. *Q.* And it was mullocked up to the top? *A.* Yes.
4315. *Q.* What was done with the top set and the back? *A.* Timbered, and baulks put up between the back, and the timbers and angles and bevells put in
4316. *Q.* And it was left as securely as it could be? *A.* Yes.
4317. *Q.* On the 400 level there is an old stope on top of that? *A.* Yes; where the men were killed in 1895.
4318. *Q.* Have you recently been over the back of that stope? *A.* No.
4319. *Q.* Do you know what ground there is between that stope on the 400 level and the Central boundary? *A.* No.
4320. *Q.* It is the old stope where the men were killed in 1895? *A.* I could not give you any information about that stope. I know it is there, but I do not know whether it is connected with the Central boundary or not.
4321. *Q.* On going to the next level from the 400 to the 500—that is where the accident took place in 1901—on the 500 level? *A.* That is what we called the 600 stope.
4322. *Q.* Have you been there recently? *A.* Yes, last Saturday.
4323. *Q.* Which way did you get in? *A.* At the south end.
4324. *Q.* How did you go to the stope, and what did you find there? *A.* We went up about four floors.
4325. *Commissioner.] Q.* Who went with you? *A.* Mr. Wainwright, Stohr, Bennetts, and myself.
4326. *Mr. Edwards.] Q.* What did you see there? *A.* We went up about four floors, and then we went along the rill of the mullock.
4327. *Commissioner.] Q.* How far from the Central boundary would that be;—how many sets? *A.* I could not give any idea.
4328. *Mr. Edwards.] Q.* Referring to Exhibit No. 15: there is, the plat and it runs round to the mullock pass;—where did you go? *A.* We started from the 600 and went up four ladders and went straight across to the footwall in a northerly direction about 20 feet. Then we went straight up the rill of the mullock. The stope is mullocked up there.
4329. *Q.* When you got over the rill of the mullock, where did you go? *A.* Towards the Central, about 16 or 18 feet on the 10th floor, after going over the rill of the mullock. The ground was lying on the 10th floor. We crept along on the dirt, and we went along it between 20 and 30 feet.
4330. *Q.* Do you know the winze there? *A.* Yes.
4331. *Q.* How far south of the winze were you? *A.* Where the winze is going from the 700 to the 800. One winze is going from the 400 into that stope.
4332. *Q.* Have you any idea within what distance you would be of the Central boundary at the 10th floor? *A.* About 50 or 60 feet.
4333. *Q.* When crawling along over the rocks and dirt, what height was there between you and the back? *A.* In some places 2 feet, in some places 5 feet, and in some places 8 or 10 feet. It was ore there.
4334. *Q.* You say the ground on the top of the tenth floor was ore? *A.* It was sulphide.
4335. *Q.* Was there any mullock on top? *A.* No.
4336. *Q.* From the appearance, could you say whether the timber underneath where you were walking was standing in position or broken out? *A.* All the timber that we could see was standing perpendicular.
4337. *Q.* When you got up to within 50 or 60 feet of the Central boundary, what did you see there? *A.* A terrible lot of broken ground laying down on the timber; but the back was perfectly solid. The further you went to the Central the closer she got to the back.
4338. *Q.* Do you know the stope from the 700 to the 600 which was being mullocked by the Central? *A.* Yes.
4339. *Q.* They left off mullocking it on the 5th May, 1901; do you know if more any mullock was put in by the South Mine. *A.* Yes. We were mullocking that place up at the time of the creep.
4340. *Q.* Where were you at the time of the October creep? *A.* I was at home.
4341. *Q.* Do you know of any cavity on the boundary of the South and Central Mines that would account for that creep in the Central? *A.* No.
4342. *Q.* Up to that time, was the whole of the ground in the South standing solid and secure? *A.* As far as I know, everything was quiet in the South Mine.
4343. *Q.* Do you know of any opening, or result of faulty mining of any description, that would cause such a tremendous fall to create havoc in the Central Mine to the extent of 290 feet? *A.* No, I do not.
4344. *Q.* It is said that some time in June last a crack appeared in the Central Mine, and that at a distance of 35 feet inside the Central, in a winze there, that the miners' lights were put out—presumably by the draught caused in the South shaft by the working of the cage at a distance of 450 feet; do you think the draught caused by the cage in the shaft would blow a light out at even 50 yards? *A.* I never heard of such a thing; it is unreasonable.
4345. *Q.* Within what distance of the shaft is the draught caused by the cage felt? *A.* You might feel it some distance, but not sufficient to blow out the candles at even 6 or 7 feet.
4346. *Q.* You know nothing about the workings above the 400 or 500 levels? *A.* No.
4347. *Mr. Hall.] Q.* You do not know the condition of the ground above the 350 level? *A.* No.
4348. *Q.* You do not know the old stope at the 400 level;—are there two at the 400 level—one the east, and one west? *A.* Yes; that is prior to my going into the South Mine.
4349. *Q.* The stope above the 600 level to the 500 level, is that crushed in? *A.* No.
4350. *Q.* Look at Exhibit No. 14, which says "crushed in";—is that correct, or is it not crushed in? *A.* I should not call it crushed in. I would call it a fall from the sill to the 500 or thereabouts.
4351. *Q.* Could you see the timbers last Saturday? *A.* Yes.

4352. *Q.* Bennetts was with you last Saturday, and had the same opportunities as you of seeing timbers;—if he says he did not see any timbers, would he be speaking the truth? *A.* If he says he did not see any timbers, I would say he was incorrect.
4353. *Q.* Do you remember where you went in at the 600 level on Saturday. *A.* Yes; about 20 feet from the edge of the cross cut going into the mullock pass. You would call it the mullock tunnel.
4354. *Q.* How far from the boundary of the Central Mine were you when you went in? *Q.* About 60 feet.
4355. *Q.* How far did you travel in? *A.* I think about 20 feet; it is only a rough guess.
4356. *Q.* Have you ever been to the Central boundary? *A.* No; I have been to the end of the ground that was worked; and I was always given to understand that we were about two sets away.
4357. *Q.* If it was about 150 feet from the Central Mine boundary, and you went in about 20 feet, that would leave you 130 feet from the boundary? *A.* It would, if the figures are correct.
4358. *Q.* Apart from the track you have already described, did you go in through the stope towards the Central at any other place? *A.* No.
4359. *Q.* Do you know of your own knowledge how this ore got there? *A.* It got there by a fall.
4360. *Q.* When did it take place? *A.* I could not say.
4361. *Q.* You knew the ground about there previous to the fall? *A.* Yes.
4362. *Q.* Did a previous fall take place in that locality about eighteen months before? *A.* Yes.
4363. *Q.* What was the nature of that fall? *A.* Some ground came away from the back—a good bit. It crushed down several floors, down towards the 600 level.
4364. *Q.* And since that fall men have been engaged in trying to pick up the backs? *A.* Yes.
4365. *Q.* And did not succeed in doing it when the second fall occurred in 1901? *A.* That is so.
4366. *Q.* Was any work done then after May, 1901? *A.* No.
4367. *Q.* And a cavity was left there after that accident? *A.* Yes.
4368. *Q.* Did it break from the 500 into the 600 level? *A.* No.
4369. *Q.* Prior to October last, and up to the 8th October, were you in charge of the mine—of the locality near the Central boundary? *A.* We had a free hand all over the mine, and had charge of the whole of the mine.
4370. *Q.* Was any work being done close to the boundary in October last, or before the creep? *A.* I could not say. Bennetts could tell you more about that than I. He was in charge at the 800; but, leaving out the 800 level, there was no work being done on the south side of the Central boundary.
4371. *Q.* At the 700 and 600 stope they were mullocking right up to the time of the accident;—had it been completely mullocked then? *A.* All the stopes in the Central end were mullocked up.
4372. *Q.* Have the South been mullocking up continuously after the Central left off? *A.* Yes.
4373. *Q.* Were these stopes from the 800 to the 700, and from the 700 to the 600, empty a considerable time before the mullock was put into them;—was the mullocking started while stoping was going on? *A.* Yes.

[Witness left.]

[The Commission adjourned till Friday, 27th March, 1903, at 10:30 a.m.]

FRIDAY, 27 MARCH, 1903.

[The Royal Commission sat at 10:30 a.m., in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL: ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company, (No-Liability.)

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Albert William Stohr, recalled, resworn, and further examined:—

4374. *Commissioner: Q.* You produce some further plans;—will you kindly describe them? *A.* I have here the following plans of the South Mine:—(1) Longitudinal sections, showing all mining and filling operations for 300 feet from the boundary of the Central Mine on all levels, up to the date of the creep. [*Plan put in, and marked Exhibit No. 30.*] (2) Cross sections at every 50 feet, showing all mining operations on all levels and also the filling. [*Plan put in and marked Exhibit No. 31.*] (3) These two plans, A and B, show the floor plans, indicating where the sections were taken from on the plans already put in, on all the floors. That one, marked "A," is on the 11th floor of the 500 foot level up to the 12th floor. That one, marked "B," is from the 800 level sill floor up to the 10th floor of the 500-foot level, both inclusive, showing the stoping on the different floors. [*Plan put in, and marked Exhibit No. 32a and 32b.*] These plans are brought right up to the date of the October creep.

[Witness left.]

Samuel Mayne, called in, sworn, and examined:—

4375. *Commissioner: Q.* What is your full name? *A.* Samuel Mayne.

4376. *Q.* You are underground manager of the South Mine? *A.* I am.

4377. *Q.* How long have you held that position? *A.* Between five and six years.

4378. *A.* Did you hold any position in the mine prior to that? *A.* I was foreman and shift boss.

4379. *Q.* What is the term of your service altogether? *A.* About nine or ten years.

Witness—S. Mayne, 27 March, 1903.

4380. *Q.* And you have had some previous mining experience before going there? *A.* Yes; at the Proprietary Mine. I was there something like five years—for two years foreman and twelve months shift-boss. That was my first appointment in Broken Hill. Before that I was in South Australia and Victoria. Altogether, I have had about close on twenty-seven years' experience.

4381. *Mr. Edwards.] Q.* I understand you worked your way up from a lad of 11 years of age to your present position? *A.* Yes.

4382. *Q.* Practically, the whole of your lifetime has been spent in mining? *A.* Yes.

4383. *Q.* Were you in the South Mine at the time of the original creep on the boundary of the South and Central Mines in 1892? *A.* I was.

4384. *Q.* And had been in the South Mine for how long previous to that? *A.* About twelve months.

4385. *Q.* Do you remember what day of the week that movement took place? *A.* It was a Monday.

4386. *Q.* Can you say how soon before that you were in the mine—in that stope? *A.* I was there at 11 o'clock on Monday. I was in both the Central and South Mine stopes; I was through them.

4387. *Q.* What size stope was there on the South boundary? *A.* It runs from the boundary, close to the old South shaft, about 80 or 90 feet. About 80 feet long, and between 40 and 50 feet wide, running up within about three floors of the 300 from the 350.

4388. *Q.* On the Monday that this movement took place, can you say at this distance of time where the greater pressure appeared to be? *A.* I was in the office when the night shift boss came up. He said to Mr. Lewis, "There is a movement in the Central boundary." The timbermen had been working all night at the timbering, and he said, "You had better go and see it." I went down and saw the men were busy putting in angles against the Central boundary in the South Mine. I went in and told them to take all the tools out of the stope.

4389. *Q.* Your men were trying to strengthen the timber on the south side of the boundary? *A.* The Central men were putting in angles and sets.

4390. *Q.* Both were trying to hold up their ground? *A.* Yes; putting in additional timber.

4391. *Q.* The men were taken out of both stopes? *A.* In the Central the men were also busy, and the South men were taking out all the tools and trucks, the rails, and all appliances. When they saw the timber was leaving they had to clear out; they had hardly time to get out when it collapsed; in fact, Colmer left his watch there.

4392. *Q.* Both stopes on the boundary at the 350 collapsed? *A.* Yes, and she went as far as the 200.

4393. *Q.* Has it been possible for either of the mines to pick up the ground on the boundary since? *A.* I do not think either party tried.

4394. *Q.* You have heard the evidence given by the various witnesses as to the condition of the 400, 500, 600, 700, and 800-foot levels; you have heard the evidence given by Colmer, Bennetts, Driscoll, and you heard the evidence of the men that were on the level at the 600 at the time of the creep; you have also heard the evidence of the truckers of what they felt on the 400 level;—can you say in the main, that the whole of the evidence is true? *A.* Yes.

4395. *Q.* You have seen the plans that the Central have put in showing the depleted stopes or ground worked in the Central Mine? *A.* Yes.

4396. *Q.* You have heard the evidence given by the witnesses for the Central;—now, applying your practical knowledge as a miner, can you say where that void or the contents of it has gone to? *A.* There was not room enough in the South Mine to contain one-quarter of it.

4397. *Q.* You have heard the evidence given of the whole of the fall trending in a north-easterly direction? *A.* The first place we went to was on the 400 level, and went up a ladder-way and stood on the timber that was across from the hanging wall to the footwall side. We looked on the northern side down and saw a large hole, and after viewing that with the lights we turned round and went north two or three sets, and there was a pillar right between the two big falls. There was a big cavity, into which I was told some 12,000 yards had been put. From that we went to the 500, and I was given to understand that the creep extended 30 feet further at the 500 than it did at the 400. If that cavity at the northern end had run into the South Mine I would like to know what we were standing on when we were on that bridge. It could not have gone under it, and I am sure it could not go over it.

Commissioner: I think he has made a mistake in that. The evidence is that it was running in a southerly direction.

4398. *Mr. Edwards.] Q.* From your experience, at what angle will mullock run? *Q.* It might run at 45 degrees, but I doubt if it would where there is timber. It would choke itself long before that.

4399. Where a fall takes place there must be some cavity below for the stuff to fall into? *A.* Yes.

4400. *Q.* You have heard it said that all these stopes in the Central Mine were well mullocked up; Mr. Hebbard's report says: "You will therefore see that with the pillar and stope system in vogue, and the close system of mullock filling adopted, a creep of the extensive nature of the one under notice was practically impossible, and that every provision that human foresight could suggest was adopted with a view to the safe administration of the mine";—I assume that, before any large quantity of stuff could fall away, there must be some cavity for that stuff to fall into? *A.* Yes.

4401. *Q.* You will see this plan of the Central Mine at the 400 level [*Exhibit No 2*]; do you see the red hatching there—that, I take it, is the ground crushed down; from the evidence, can you tell me where that ground has gone;—from your investigation of the mine, has it gone towards the South? *A.* It has gone towards the South.

4402. *Q.* Can you account for this: that, assuming all the stopes in the Central Mine had been mullocked tight up to such an extent that every provision that human foresight could suggest—closely filled with mullock—can you account for the plat sheets and railway iron that fell from the 400 level being 32 feet underneath and 12 or 14 feet in a north easterly direction from where they were on the level? *A.* No.

4403. *Q.* Could that cavity be accounted for; would that back fall in; would that have given it a trend in the opposite direction;—it must have been open to the north east before it could have fallen north-east? *A.* Yes.

4404. *Q.* So that, in order that these plat sheets should fall in this direction, there would have to be a cavity in that direction, and that is in an opposite direction to where the South is? *A.* Yes.

4405. *Q.* Then, again, in order that this creep here should extend 40 or 50 feet on the 500-foot level in a north-easterly direction, there must have been a fall in the north-easterly direction? *A.* Yes.

4406. *Q.* That is in an opposite direction to your mine? *A.* Yes.

4407.

4407. *Q.* When you come to *Exhibit 4*, and get on to the A 2 and A 3 on the 600 level in the Central Mine, you find that the extent of the crushed ground does not go any further than 50 feet in the Central boundary? *A.* Yes.
4408. *Q.* Assuming this is all crushed ground, there must have been some cavity for it to fall into? *A.* Yes.
4409. *Q.* You see this is 50 feet wide; is it possible that Mr. Hebbard's statement is true—that if they were all closely mullocked up to let down the ground that was crushed there from the 400 to the 500, and from the 500 to the 600;—what do you say to well-filled stopes that will let down the ground like this? *A.* They were not closely filled.
4410. *Q.* Did you hear Mr. Hebbard say that the pillar at the 600 level—that they had started to stope away from the boundary—that they had increased the stope to 75 feet? *A.* Yes.
4411. *Q.* I think you have been lately through the stope in your ground at the 600 level? *A.* Yes.
4412. *Q.* When were you there last? *A.* This morning.
4413. *Q.* How far from the shaft is it;—will you describe it? *A.* It is about 400 feet from the shaft, in towards the Central boundary from the main shaft; about 150 feet in from the Central boundary. We went up the steps until we came to the 10th floor.
4414. *Q.* How far in a direct line from where you left on the level? *A.* About 50 feet in towards the Central boundary. When we got to the 10th floor it is broken ground—ore lying there; it had come from the back on to the timber. We went about 20 feet further and crawled in to the 12th or 13th floor. The back was standing as solid as a pile. All that is crushed down; it is sulphide—no mullock at all—within 60 or 70 feet from the Central boundary.
4415. *Q.* How was the back as you got in towards the Central? *A.* Coming down on to the ore, about 3 feet standing firm without any break in it whatever.
4416. *Q.* From your experience, do you think that any cavity at the 600 level originally existing had anything to do with the creep in the Central Mine in October? *A.* No.
4417. *Q.* You know the whole of the boundary from the 400 level down to the 800;—do you know of any cavity on your side of the boundary that would cause this ruin to the Central Mine? *A.* No, I do not.
4418. *Q.* You have sent in a report to the Chief Inspector of Mines;—you sent in this report after making careful investigation, and you still say that the statements in this report are in accordance with facts? *A.* Yes.
4419. *Q.* Do you wish to alter or amend your report in any way? *A.* No.
4420. *Q.* At the 425 you say no new settlement was visible on this level;—was there any visible settlement at the 400 level—any pressure coming in? *A.* Yes. I did not see that at the time.
4421. *Q.* Then you want to modify your report to say there was no indication at the 500, but at the 425 feet there was;—what was it? *A.* Two sets from the cage—35 feet from the boundary. Since this, the drive has been breaking down gradually.
4422. *Q.* What fact did that movement appear to you to arise from—from a fall, or pressure from the other side? *A.* I think a fall and pressure.
4423. *Q.* Do you know what condition the bottoms at the 350 level were left in at the time of the 1892 crush? *A.* I could not say.
4424. *Q.* Were they solid and sound? *A.* I could not say.
4425. *Q.* From your experience, to what causes do you attribute this movement? *A.* Having been in both mines, and having taken particular notice of the fall and the way it has extended in both mines, and seeing that it extended further at the 500 than at the 400 in the Central, I come to the conclusion that it was a more heavy fall above the 400 conjointly with crushing the timbers and filling up the gangway, and that is where the mullock went to.
4426. *Q.* That would account for the northerly trend of some of this crush? *A.* Yes.
4427. *Q.* And that would account for the timbers on your boundary being affected as they are? *A.* This fall had crushed the timbers down, and they gradually broke, and that is why there was no more dust than there was. If it had gone at the bottom first, and top afterwards, the men would never have got out.
4428. *Q.* So you think it occurred above the 400 level first? *A.* Yes.
4429. *Q.* You know it is more noticeable in the Central than in the South? *A.* Yes; it shows that.
4430. *Q.* Do you know of any precaution or care that could have been taken by your company that was not taken to prevent any injury to the Central Company? *A.* We have always taken the greatest care of the boundary for our own sake and for theirs too. I have never had any complaint.
4431. *Q.* You were underground manager at the time Mr. Greenway was consulting engineer for the South Mine? *A.* Yes.
4432. *Q.* Do you know of any agreement being entered into between the two companies with reference to the boundary? *A.* I do not know.
4433. *Q.* Did you ever have any instructions from Mr. Greenway not to go to the boundary? *A.* If we had we should have had to wait for four or five years for the Central to get to the boundary.
4434. *Q.* You had no instructions to keep away from the Central boundary? *A.* No.
4435. *Q.* Mr. Hebbard, in his report, says: "To further show that there was some considerable anxiety on the part of this mine's officials as to the state of the South Mine's boundary workings, I may say that shortly after becoming connected with this corporation I suggested the advisability of offering to fill up a section of the South Mine workings on our boundary, which offer was accepted, after a little pressure had been brought to bear, and the work commenced. The section proposed to be filled would have taken about 8,000 cubic yards to fill it, but we were ordered to stop when about 1,200 yards had been put in";—was there any pressure brought to bear on you? *A.* No.
4436. *Q.* Was there any pressure brought to bear by the Inspectors of Mines to compel you to mullock-up your sets? *A.* No.
4437. *Q.* I suppose that section was filled up by the Central to 178 sets, and, I believe, after that your own mullock pass was completed to that level or the level above, and you commenced to put the mullock in? *A.* The Central put in seventy-eight sets more than agreed upon. I think their offer was 100 sets at £1 a set, and we allowed them to fill seventy-eight sets more than that. Mr. Howard and Mr. Courtney arranged the matter.
4438. *Q.* And after that that stope was filled up with your own mullock? *A.* Yes.

Witness—S. Mayne, 27 March, 1903.

4439. *Q.* Mr. Hebbard, in his report, says: "I have no desire to throw personal blame on the officers of the South Mine, because I know that in the matter of the notorious incompleteness of the filling of the mine they are more or less the victims of circumstances; but I do maintain that the facts of the case show that the recent creep is the direct result of the old creeps in the South Mine which have never been investigated or filled, and that the management of this mine is in no way responsible for it";—is that true? *A.* No. Mr. Hebbard has not been through the mine these twelve months. It is not true.
4440. *Q.* Is this statement true: "The facts of the case being as I have stated, we have on one side of the boundary a series of very incompletely filled stopes which have suffered movement at four distinct periods, without counting the original creep at surface (the lack of filling is proclaimed by the official reports, and is well known to your officers), and on the other side a series of stopes protected by solid pillars and completely filled with mullock";—is your boundary so rotten and his so perfect? *A.* No. I think the South was as safe as the Central was.
4441. *Q.* If the Central side had been protected by solid pillars completely filled with mullock, would that creep have happened? *A.* No, it could not.
4442. *Q.* Then again, Mr. Hebbard says: "Observation during the whole time since the creep occurred shows that the whole of the movement is in a slanting direction to the South";—what do you say to that? *A.* It did not appear so to me when I saw the Central Mine.
4443. *Q.* Is that true? *A.* No, it is not a fact.
4444. *Q.* Is not the greater portion to the north? *A.* Yes, as far as I am a judge.
4445. *Q.* Then take this clause: "My theory, which you will observe is based on facts as enumerated, is that the present creep was caused by a fall in some of the old creeps in the South Mine. The cavity in our mine could not have been caused by any other means than by the running of the mullock into some open space, and it is not accounted for by the possibility of any shrinkage in our own workings"; what do you say to that—as a practical man, what do you say to a statement of that sort? *A.* It is not true.
4446. *Q.* Is there any ground for a theory of that sort? *A.* I do not think so.
4447. *Q.* Again, he says: "On boundaries of sections, stopes, and South Mine, paddocking laths were invariably used to prevent the mullock filling from breaking away";—you have seen paddocking laths break away and the contents of some sets run out? *A.* Yes.
4448. *Q.* Do you think, if the paddocking laths broke, would a large quantity run from the stope before she choked? *A.* Not a great lot, unless there was a large open space below it.
4449. *Q.* At the incline of at least 45 degrees? *A.* Yes.
4450. *Q.* In reference to the footwall stopes, what is the ordinary shrinkage in mullock, even if put in horizontally? *A.* I think it is a hard job to tell; but I should think about 10 per cent.
4451. *Q.* Information was supplied to the local Inspectors of Mines of the amount of mullocking done for the year ending 31st December, 1902, and I believe the amount was 28,723 cubic yards of mullock put into the mine;—that information was given, and you believe it to be true? *A.* Yes.
4452. *Q.* In your report you say: "825-foot level.—Within three and a half floors of the 725-foot level an area, approximately 20 feet by 15 feet at about 25 feet from the Central boundary, shows the effects of heavy superincumbent weight, several sets of timber having been crushed. No disturbance is visible below this point";—do you adhere to that still? *A.* Yes.
4453. *Q.* And you say that extends now to the 4th and 5th;—you go now to the 600, and any movement that took place must have been above the 400 level? *A.* Yes.
4454. *Q.* You have read the report of Mr. Slee, the Chief Inspector of Mines? *A.* I read it once.
4455. *Q.* Do you agree with it? *A.* Yes.
4456. *Q.* You have read the report of Messrs. Milne and Godfrey, the Inspectors of Mines;—do you agree with their report? *A.* I do.
4457. *Q.* Do you think they are borne out by investigation continued up to the present time? *A.* Yes.
4458. *Q.* And nothing discovered since November last would in any way alter your opinion, with the exception of the statement as to the 400 level? *A.* That is so.
4459. *Q.* You have heard the statement made by the witnesses that a large "vug" existed in their mine, one at the 600 and one at the 700 level—a big crack or crevice;—do you think that these "vugs" are a source of danger to the working of a mine? *A.* Yes; unless you timber them and fill them up. It is no use putting loose stuff into them.
4460. *Q.* Did you see the one at the 600 level in the Central Mine? *A.* Yes; it was 80 feet long, 30 feet wide, and 30 feet high.
4461. *Q.* Was the bottom of it explored? *A.* If it is a continuation of the one they found on the 700 foot level I do not think they ever found the bottom of it.
4462. *Q.* Unless they could get to the bottom of it, what means would they have of filling it;—has that been done? *A.* I think it was filled with sulphide; I saw some rocks in it that I would not like to try and lift up.
4463. *A.* Do you know where they came from? *A.* No.
4464. *Q.* Lumps of sulphide ore? *A.* Yes; they must have got there from the back. They were never put up there by human strength.
4465. *Q.* Do you think the presence of the "vugs" in the Central Mine and the cutting away of the ore pillars would strengthen or weaken the mine? *A.* Weaken it, certainly.
4466. *Q.* You have heard the evidence of the witnesses here who stated that in some cases the ore pillar and stope were worked on at the same time;—is that the ordinary way of working the pillar and stope? *A.* I should not work it that way; others might have a different way.
4467. *Q.* Working the pillar and stope at the same time—does that agree with this statement: "That the stopes were protected by a series of pillars";—if the pillar and stope were worked at the same time, would the pillar be any protection to the stope? *A.* No; it is a drag on the stope.
4468. *Q.* We have a statement from Mr. Hebbard that on the 500 level the pillar was left 12 feet wide running across the lode against your boundary—friable ore;—would that be any protection? *A.* It was not friable ore; it stood there four or five years without any protection. It has been worked out since.
4469. *Q.* So there is no pillar on the boundary from the 500 to the 500 below the 500 level? *A.* It has been worked out since.

4470. *Q.* In reply to Question No. 3772, Mr. Hebbard says: "As it has been explained over and over again, the pillar of ore remaining was of such a rotten character it was deemed advisable to remove it and put in timber." Then read his replies to Questions Nos. 3769, 3774, and 3775. As a practical man, Mr. Mayne, can you put anything underground as good as nature had there originally? *A.* Not as good as that pillar was by a considerable lot. That pillar had to be blasted out, and when doing so the blasting tore off a large piece of ground on the western side, and I had to send my timber-men in to secure the ground. That is on the 600-foot level.

4471. *Q.* Does that ore alter in character? *A.* It gets softer as it gets towards the 500-foot level.

4472. *Q.* Is it sufficiently strong to support weight? *A.* If left intact from the 600 level up; but they took away the foot of it.

4473. *Q.* If it had been intact at the 600-foot level? *A.* It would have been there now.

4474. *Q.* If they had not cut it away at the 600-foot level would there be sufficient at the 500-foot level to support the weight? *A.* I do not know that they had a pillar at the 500 level.

4475. *Q.* Assuming that they had a pillar? *A.* Yes.

4476. *Q.* Was it better than any mullock or timber that could be put in? *A.* Yes.

4477. *Q.* Do you think the reason was that it was good saleable ore? *A.* I think they wanted the ore at the time.

4478. *Q.* You have heard Mr. Hebbard say that the reason they knocked off machine-drills was not on account of blowing the mine about, but that hand labour did better work? *A.* That might be in some ground. It is not my experience in my lower levels.

4479. *Q.* You have the same run of country? *A.* I do not know; I have not been through the Central much. My experience is that machines are cheapest. I have increased mine 10 per cent. in the last twelve months; I have put on ten extra ones. We had nine before; we have twenty-three now.

4480. *Q.* There is a wide lode in their mine, and also in yours? *A.* We work ours 35 feet wide at the 600-foot level at the boundary.

4481. *Q.* Are there any peculiar difficulties in this lode to make it difficult to cope with to prevent slips or falls from the footwalls? *A.* Yes.

4482. *Q.* And it is a fact that owing to the difficult character of the ore body—hard sulphide, soapy head, jointy ground, &c.—that great difficulty is met with in dealing with it? *A.* It causes small falls at times, and brings down others.

4483. *Q.* Do you know of any precaution you could have taken, and did not take, whereby this might have been avoided? *A.* I do not know of any.

4484. *Commissioner.*] *Q.* Could you give me an idea of the amount of mullock which should be put in a mine in proportion to that taken out? *A.* I could not give you that, for there is a lot of mullock put in that we do not keep an account of.

4485. *Q.* In your returns to the inspectors you give a certain amount of ore filling;—does that mean filling put into the mine? *A.* As I explained, we have not been using this on the whole of the mine. From the southern end we were working some open stopes where we were breaking most of the ore. This has not been distributed throughout the whole of the mine; almost as much is going in the north end as is coming out.

4486. *Q.* This represents the filling put in from the surface? *A.* Yes; we had the mullock out of the drives and cross-cuts, but we do not measure that.

4487. *Q.* In the matter of mining on the boundary, is there anything you can recommend? *A.* Provided they both get there together—one should leave a pillar. It is hardly fair that one should have to wait until the other party gets there. If we had not worked out that ore between six and seven years ago, our mine would have had to go idle, because our ore was worked out, and we considered we had only six weeks' work until I prospected and struck another bit on the 600 foot level further south.

4488. *Q.* I think you know that in the Proprietary and Block 10 there is an understanding to allow a pillar to remain? *A.* I do not know of it. I know they did it in their other blocks. I think it is a difficult question to settle.

4489. *Q.* Do you think it should be that the mine who gets to the boundary first should take out the other owner's ore body and arrange it that way? *A.* One might be particularly rich and good in ore-body, and the other one might not know anything of what is on the boundary, and would in all probability have to close down.

4490. *Q.* There is nothing you can suggest as to working on the boundary? *A.* I would suggest that they start on the boundary and work away. It is not altogether advisable to leave pillars, because one little mine may have the best of the ore there, and if they had to wait until the other mine works theirs out it would be unfair.

4491. *Q.* You mentioned something about the machine-drills; you have increased the number of your machines;—do you use them where there is square set filling? *A.* No, not in the furthest end; we get in with hand-drills.

4492. *Q.* In heavy ground is it not safer to keep square set timber overhead? *A.* Yes; it is safer in loose ground; I should not use machines in broken ground. You could use them in heavy ground.

4493. *Q.* Would not extra force from the machine-blasting interfere with the timbering? *A.* They put in some big charges in hand-drilled holes. It is not necessary to put in a heavier charge in machine-drilled holes than in hand-drilled ones.

4494. *Q.* In filling up in the backs, would it not be advisable to have a winze there through the back to add the filling, if necessary? *A.* We do not throw it up, with the exception of at the 400 level, where we had no communication, and we had to put a cage there to lift it.

4495. *Q.* In the case of the Central where the winze was put down, should there be any necessity to put down such a winze? *A.* Yes, and more than one.

4496. *Q.* To keep the supply of mullock up? *A.* Yes, and for air.

4497. *Q.* You have heard the evidence given right through about the creep, and the four witnesses who were in the 600 level, that there was at first a slight wind with a certain amount of dust;—would that not indicate a fall or run of ground? *A.* That is my theory.

4498. *Q.* If it was a heavy fall the wind would, consequently, be increased? *A.* It would not affect them at the 600 foot level.

Witness—S. Mayne, 27 March, 1903.

4499. *Q.* You know that the second lot of wind was the heavier, would that not indicate that there were two falls or runs? *A.* I think the first was heavy, and after the fall got on top of the stopes the heavy pressure made the timbers creak—our timber-man said he heard the timbers creaking, and then the fall occurred. I think there was a very heavy fall on the 400-foot level that crushed the timber down till they could stand no more, and burst.

4500. *Q.* The evidence is that the heaviest fall occurred half an hour after the first; and other evidence is that the wind from the second was greater than the first—that they heard no fall the first time, but the second time a distinct fall? *A.* By the other falling above the 400.

4501. *Q.* Other evidence is that the draught came from the 500-foot level? *A.* That might be rushing down the winze and spreading itself.

4502. *Q.* You say you climbed up the stope twenty-five floors from the sill on to the back? *A.* On the crushed ground.

4503. *Q.* Was that square set timber there? *A.* Yes.

4504. *Q.* Could you see the timber underneath? *A.* Yes.

4505. *Q.* How was it standing? *A.* Some crippled, and some standing perfectly straight.

4506. *Q.* Was there any mullock winze there? *A.* That stope was filled from the sill floor up to the tenth from wall to wall.

4507. *Q.* There was no winze into that, no means of getting into it? *A.* It is a ticklish place to crawl up.

4508. *Q.* Do you not think it would be advisable to have a winze there? *A.* We had one before the creep coming there. That is why we tried to crawl up the other way, but it was broken.

[The Commission adjourned till Monday, 30th March, 1903, at 10-30 a.m.]

MONDAY, 30 MARCH, 1903.

[The Royal Commission sat at 10-30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability.)

Mr. W. J. Wise, Secretary Barrier Branch Amalgamated Miners' Association, appeared to represent that Association.

Samuel Mayne, re-sworn, and examination continued:—

4509. *Commissioner.* *Q.* In answer to Question No. 4488, you said "I know they did it in their other blocks." I understand you wish to amend that answer? *A.* Yes, I do not know of any pillar and stope system in the Proprietary Mine.

4510. *Q.* Do you know if there is any pillar between Block 10 and Block 11? *A.* No, I do not know. I was never in the mine.

4511. *Q.* In view of this extensive creep in the Central Mine, do not you think it would be advisable to leave a solid floor underneath—say at the 800 level to protect the miners working underneath? *A.* It is impossible to leave it at the 800-foot level, it may be left provided they go to 900 feet.

4512. *Q.* Do not you think such a thing desirable? *A.* Yes, I should say so; unless as I said there might be a poor little mine who got no ore at all until they came to the 800-foot level.

4513. *Q.* I mean for the protection of the men working lower down? *A.* I suggest that both start from the boundary.

4514. *Q.* Do not you think it would be advisable to leave a floor right across the mine to prevent the creep coming down any further—right from side to side, say 50 feet deep? *A.* No, I do not think so. It may be advisable; but that is a matter of opinion. But I do not think you could leave a floor—not for any considerable time.

4515. *Q.* You see how difficult this country is—and do you not think it dangerous for the men working below—do you not think it might do still further down? *A.* Possibly, but not probably.

4516. *Mr. Hall.* *Q.* You remember the creep that took place in 1892, that you gave evidence of? *A.* Yes.

4517. *Q.* The report of Mr. Hebbard on that creep, of the date of 18th June, 1892, was put in as an exhibit in this case: he was then Inspector of Mines;—have you seen that report? *A.* No. [*The Secretary read Exhibit No. 25.*]

4518. *Q.* Do you agree with that report, or do you differ from it; there it says the creep took place on Wednesday? *A.* I do not know that I agree with it, and I do not know that I disagree with it. We all considered at that time that the square set timbers were safe with angles and bevels. At that time there was no filling, and it was no doubt that the hanging-wall side caused the collapse at that time.

4519. *Q.* Take the second paragraph of the report, is that correct? *A.* Yes, that is about correct.

4520. *Q.* Take the next paragraph, is that practically correct? *A.* I should say it was the timbers lower down, if any were rotten at all. I do not think any at all were rotten.

4521. *Q.* What do you mean by lower down? *A.* Below the 200 and about the 300 level.

4522. *Q.* Turning to your answer to Question No. 4386, it reads: "*Q.* Can you say how soon before that you were in the mine—in that stope?" And your answer is: "I was there at 11 o'clock on Monday; I was in both the Central and South Mine stopes; I was through them." Do I understand that was the last time you were there before the fall occurred in 1892? *A.* I was there at 11 o'clock, before the creep occurred. I could not say definitely the day, it is so far back.

4523. *Q.* Is it correct where you say "It was a Monday"? *A.* I could not be sure. It must have been a Wednesday that I was there.

4524. Q. Did not the South Mine withdraw its men from its stopes on its side two days before the fall occurred? A. No, they did not; they had just as much chance of getting out as the Central men had.
4525. Q. Were the South men working right up to the time of the creep? A. Right up to the time of the creep.
4526. Q. The question was asked of Colmer, Question No. 4097: "Had the stope been showing signs of weakness?" A. Yes, the men had been turned out of it, because it was talking so bad. We were sent in on a Monday afternoon to try and fix the stope up." Can you tell me if that is correct? A. That was the Central side he was talking about. He was a timber-man on the Central side then.
4527. Q. Do you remember Mr. Hebbard going through the stopes later than you? A. No, I did not see him in that stope, though I may have.
4528. Q. You are quite certain that it was the day of the creep that you went there? A. Yes, quite certain. I was there at 11 o'clock the day of the creep.
4529. Q. You have made a mistake in the day of the week,—is it not quite possible that you have made a mistake in having visited the stope? A. No, I am certain of the time.
4530. Q. Were any men in the Central timbering up after the men in the South were taken off the work? A. No, they were continuing timbering on the boundary when some of the South men took out the materials.
4531. Q. Were the Central men timbering when the South men were taking out the trucks, &c.? A. They were both timbering against the boundary, and some of the truckers were shifting the tools on both sides.
4532. Q. So far as the South is concerned, you have never attempted to pick up the ground? A. No, nor the Central either.
4533. Q. Were not the timbers at the bottom in the 350 level in bad condition before this creep that took place in 1901? A. No.
4534. Q. You remember giving evidence before Mr. Commissioner Wade, in June, 1901, after the creep occurred? A. Yes.
4535. Q. Look at Question 38 in that report; what stope would that refer to? A. Between the 600 and 500 levels. The timber was not bad, the fall broke it down.
- [The evidence taken before the Royal Commission held at Broken Hill on 27th June, 1901, Questions 1 to 375 inclusive, and Questions 1782 to 1826 inclusive, put in and marked Exhibit No. 33.]
4536. Q. I think a fall had occurred in that same stope about two years before that? A. Yes.
4537. Q. Is there any reference on any of the plans put in as Exhibits to the effect of that fall in 1899? A. It was not necessary, because we put timbers in.
4538. Q. Did not that fall leave an opening of a very considerable size? A. No, it was not big, it was only a quantity of ore that was there.
4539. Q. Was not the opening about 50 feet long, 30 feet wide, and somewhere about 5 or 6 feet high? A. That is after the ore was taken out. We could walk along the back and touch it with a 3 foot drill anywhere, and touch it in some places sitting down.
4540. Q. Was not the size 50 feet long, 30 feet wide, and somewhere about 6 feet high? A. It might have been that.
4541. Q. And do you call a cavity of about 10,000 cubic yards nothing? A. Not when it is taken away and timber placed in at the back.
4542. Q. As a matter of fact, nothing was done to that fall until some four months after it occurred? A. I think, some two or three months. The reason we did not do anything there was because the timbers were creaking, and we thought we would leave it until it settled down, as is done in many other cases.
4543. Q. Was that the only fall that occurred in that part of the mine? A. No, we had a little fall later on—in 1892, I think.
4544. Q. Was there not a fall before the 24th May;—that is the only fall between 1889 and the 24th May, 1901? A. Yes.
4545. Has anything been done to that stope since May, 1901? A. It did not need anything, because the timber was standing intact, and the ground perfectly safe.
4546. Q. Nothing was done, I understand? A. At the time of the accident we put timber along the edge.
4547. Q. Nothing was done to recover the bodies? A. No.
4548. Commissioner.] Q. You are referring to May, 1901? A. Yes.
4549. Mr. Hall.] Q. I think no timbering or anything was done since that fall that occurred two years before May, 1901? A. Yes, it was closely timbered from wall to wall, except a small portion.
4550. Q. I am referring to the fall that occurred in 1899—my question was, has anything been done to that stope since the fall of 1899, in the way of timbering, since the fall of 1899—has anything been done in the way of timbering or mullocking? A. We took away all the stuff and closely timbered it, except a small portion on the southern and where the men were killed.
4551. Q. Well then, your answer to Question 178 will not be correct, because you say you timbered it closely;—this was your answer: "178. Q. Since that fall about a couple of years ago, has not that particular spot where the accident happened stood ever since without timber?" "Yes." A. Perhaps you do not understand me. I said the stope was closely timbered from wall to wall with the exception of a small stope where the men met the accident, that is where we were working to.
4552. Q. These stopes where the accident occurred, both in 1899 and 1901, was the stope which you went endeavouring to explore last Friday morning? A. Yes.
4553. Q. I think you told us that that main cross-cut that you started to go up from the backs of these stopes was about 170 feet from the Central boundary? A. Somewhere about that.
4554. Q. You told us you went up ten sets in height? A. Diagonally.
4555. Q. And that took you in some 50 feet nearer the Central boundary? A. Somewhere about that I think.
4556. Q. From there you went in about 20 feet further towards the Central Mine? A. Yes; and then went two or three floors above that; 20 or 30 feet towards the Central boundary.
4557. That would leave you 90 or 100 feet from the Central boundary? A. 70 or 80 feet. Not more than 80 feet from the Central boundary, because as we went up we had to go back step by step.
4558. Q. Have you been down between the 500 level, down to the 600 level and down from there through the stopes at any point nearer the Central boundary than 80 feet since October last year? A. I have not been down there at all.
4559. Q. Is it possible to get down through these stopes? A. No.

Witness—S. Mayne, 30 March, 1903.

4560. *Q.* You really do not know what the place is like, what the ground is like on the boundary between the 500 and the 700 levels? *A.* No, I do not know, it is only surmise.
4561. *Q.* Is your answer to Question 4417 quite correct when you say you know the whole of the boundary from the 400 level down to the 800 level? *A.* I did before the crush.
4562. *Q.* But you do not now? *A.* I doubt whether the other mine knows now either.
4563. *Q.* You do not know anything about longitudinal cross sections and cross sectional plans of the working of the mine? *A.* No. I do not.
4564. *Q.* At the time of the accident in May, 1901, below the 500 level you were working a stope very near the Central boundary? *A.* Something like 15 or 20 feet, we were above the 500 level.
4565. *Q.* Below the 500 level did not the stope go much closer to the boundary? *A.* It does at the thirteenth floor, where the intrusion comes in and throws it back.
4566. *Q.* Were you not working near the Central boundary at the time? *A.* Not nearer than 30 feet.
4567. *Q.* Were not the Central working their stope near to the South boundary as well? *A.* I could not tell you. I believe they were, on account of Mr. Rowe stopping the firing there on the friable ore.
4568. *Q.* You were firing too? *A.* We had need to in ours.
4569. *Q.* Before October last year how often had you been through the Central Mine? *A.* I do not think I was ever through it, only once with Mr. Hebbard and Mr. Wainwright. We went down to see the shaft. I remember going through the stope somewhere between the South boundary and the Central. That is where they were taking the timber out and making an open stope.
4570. *Q.* Since the accident in October, how often have you been through the Central? *A.* Twice.
4571. *Q.* These are the two occasions when the inspection was made for the purpose of this inquiry? *A.* Yes.
4572. *Q.* Have you ever worked the South Mine on the pillar and stope? *A.* No.
4573. *Q.* Have you ever had experience of working mines on the pillar and stope system? *A.* Not on the Barrier. I have seen it in copper mines where they have small lodes—about twenty years ago.
4574. *Q.* A small copper lode is different from a vast sulphide lode? *A.* Yes.
4575. *Q.* You really cannot give evidence of the working of the pillar and stope principle with any authority—you have never had any experience of it yourself? *A.* No; but I have an idea. If I had one on the boundary I would not take it away.
4576. *Q.* You do not approve of taking away the pillar on the boundary? *A.* Not if the other is gone. Not unless I was going to finish up with the mine.
4577. *Q.* In answer to Question 4466 you said: "I should not work it that way. Others might have a different way"? *A.* I am still of the same opinion.
4578. *Q.* Would it not depend entirely on the circumstances of each mine and the quality of each pillar and stope as to what you would do? *A.* I do not say what anyone should do.
4579. *Q.* Is it not impossible to give an answer to anything like that in a general way? *A.* I do not know that it is impossible.
4580. *Q.* The next Question, No. 4467, "*Q.* Working the pillar and stope at the same time, does that agree with this statement: 'that the stopes were protected by a series of pillars';—if the pillar and stope were worked at the same time would the pillar be any protection to the stope? *A.* No; it is a drag on the stope."—Would that not depend entirely on how much work was done on the pillar and stope? *A.* If a considerable amount was done it would not be much protection.
4581. *Q.* And by the same parity of reasoning, if a little were done it would be a great protection? *A.* I could not say.
4582. *Q.* You were asked, Question No. 4432, "*Q.* Do you know of any agreement being entered into between the two companies with reference to the boundary"? And your answer was: "I do not know." As underground-manager you would surely be informed of such an important arrangement as to the underground workings? *A.* I would be informed if it was made.
4583. *Q.* It would strike you as extraordinary its not being mentioned? *A.* They might have talked it over, but I do not know what was done.
4584. *Q.* Mr. Greenway never informed you of any agreement to that effect; or did you receive any correspondence, directly or indirectly, to the effect that an agreement was come to, or did you become aware officially of any arrangement entered into with your mine and the Central as to a boundary arrangement? *A.* I did not.
4585. *Q.* You simply carried out the plan of working the mine without any interruption from Mr. Greenway or any other person? *A.* Yes. The Central never said anything. They came through pretty often and never said anything about it.
4586. *Q.* Do you know if any pressure was brought to bear? *A.* No.
4587. *Q.* In the light that nothing was said to you about the question of leaving a pillar on the boundary, do you know if pressure was brought to bear on the directors, or any others, or Mr. Greenway about mullocking between the 600 and 700 foot levels? *A.* I am sure there was not.
4588. *Q.* Were you not unwilling to have the mullock put in? *A.* No; we were very satisfied. We knew our own pass would be holed from the surface, and we would be able to get better and cheaper.
4589. *Q.* Then you were unwilling personally that the Central should put in any mullock? *A.* I thought I could do it much cheaper. Our stopes were perfectly safe at the time. I was neither one way or the other.
4590. *Q.* Were you present when Mr. Courtney and Mr. Howard arranged for 100 sets? *A.* I was in the office when Mr. Howard and Mr. Courtney made the arrangement to fill 100 sets at £1 per set.
4591. *Q.* Would the filling of 100 sets only have the slightest good effect towards making that stope good;—would it not only be a drop in the bucket? *A.* It was not much.
4592. *Q.* Only approximately about one eighth of what mullock should be put in? *A.* A little more.
4593. *Q.* Would it not be only about one hundredth part;—were there not thousands of sets in that stope? *A.* That is two years ago. I never measured it, and never counted it.
4594. *Q.* Filling up 100 sets in a stope of that dimension would be very little indeed? *A.* It would not be much.
4595. *Q.* We have been informed how much mullock was put in by the South Mine during the twelve months ending 31st December, 1902;—were similar statistics given to the Mining Inspectors for the year 1901? *A.* I have nothing to do with that.
4596. *Q.* Were the returns only made for 1902? *A.* I do not know.

4597.

4597. *Q.* Have you any idea of the amount of mullock put in during 1901, or for the year 1900? *A.* I do not know at all.
4598. *Q.* Turning to Mr. Hebbard's report of the creep of 1902, this paragraph appears, "Subsequently, when mullock-filling of depleted stopes became the vogue, the South Mine opened a quarry some distance to the southward of the creep, the broken mullock being sent down through an old shaft—which had been converted into a mullock-pass—to one of the levels. In this connection it is admitted that more mullock was taken from the pass than was put in at the surface, thereby enlarging the cavity, but to what extent I am not prepared to say, as I do not know definitely how much the mullock taken out of pass was in excess of what was put in at surface, but that the existing cavity was enlarged is indubitable";—is that correct, Mr. Mayne? *A.* There was no cavity there.
4599. *Q.* Is it not a fact that more mullock was taken out than was put in at the surface? *A.* There might have been.
4600. *Q.* Have you not admitted it to Mr. Hebbard? *A.* Yes, I might have. There was still one of our own stopes some 200 feet from the boundary. That pass went on the underlay south.
4601. *Q.* With regard to the mullock required to fill up the depleted stopes, is it not a fact that it takes 8 cubic yards to mullock up fully one set? *A.* Yes, about 8.
4602. *Q.* As to the mullock put in and the question of shrinkage, does it not vary considerably whether it is put in vertically or horizontally, taking the same class of mullock in each case? *A.* I could not say definitely. It is hard to tell; but I should think it should.
4603. *Q.* Referring to *Exhibits* Nos. 23 and 24, are you familiar with the plans of the sill-floors? *A.* Yes.
4604. *Q.* You see the parts marked red on the Central Mine plans? *A.* Yes.
4605. *Q.* I suppose you know that the parts marked red show the total area affected by the creep of October, 1902? *A.* Yes.
4606. *Q.* You told Mr. Edwards there was not room for the quarter of that ground to go into the South Mine;—I ask you is it necessary for the whole of the contents to slip into the vacancy before the crush could occur;—would not portion of the mullock running out on the boundary cause the crush? *A.* No; it would not.
4607. *Q.* It would take the whole of it to rush out before any crush could occur? *A.* It would take the whole of it.
4608. *Q.* You think the whole lot of the filling would have to run out before the crush could occur? *A.* I think a crush about the 400-foot level caused the drives to collapse.
4609. *Q.* Can you say where the first fall occurred? *A.* I said vertically from the upper levels.
4610. *Q.* You mean conjointly in the two mines? *A.* Yes, certainly.
4611. *Q.* The gangways that were filled up, according to your theory, were they in both mines too? *A.* We only had the one gangway to fill up, that was at the 600-foot level, and in the 400 sill.
4612. *Q.* There have been a number of creeps or falls in the South Mine extending from 1892 to the October creep? *A.* Yes.
4613. *Q.* Have not some of these creeps left cavities in the South Mine? *A.* Some of them have.
4614. *Q.* The extent and nature of which have not been investigated? *A.* Some of them have.
4615. *Q.* In addition to the creep of 1892, which you have already said was not investigated, and which involved from the 350-foot level to the surface, was the fall or creep of 1895 fully investigated? *A.* That was not investigated. You could not get at it unless you sank a winze 400 feet from the surface.
4616. *Q.* It was impossible to guess the extent of the cavity left there? *A.* It was no good guessing.
4617. *Q.* Was there not a creep or fall between 1892 and 1895? *A.* No; I do not know of any.
4618. *Q.* May there have been creeps or falls between the years 1895 and 1899 and you have forgotten them? *A.* I do not know; there might have been one of a few tons.
4619. *Q.* Did not the movement of the footwall occur about 1897 or 1898 in the stopes about the 600-foot level? *A.* There might have been a bit of the footwall slip off; but I cannot remember anything else.
4620. *Q.* Might that have left a cavity? *A.* No; I do not think so. It did not.
4621. *Q.* Then this cavity from this slip of 1899—that left a cavity? *A.* That is a fall off the back when the timbers were broken.
4622. *Q.* Then a smaller fall about the beginning of 1901—a cab that slipped? *A.* I do not call that a fall; there might have been one or two trucks of stuff; but if no one gets killed they do not call it a fall.
4623. *Q.* Is the north end of the fall of 1895 80 feet from the boundary? *A.* Yes, about 80 feet from the boundary. That is the closest to the Central boundary.
4624. *Q.* The fall of May, 1901, carried broken ground still further up towards the 350-foot level? *A.* There was no level above that.
4625. *Q.* It does carry it nearer in height to that level? *A.* Yes.
4626. *Q.* Referring again to Mr. Hebbard's Report (*Exhibit* No. 9) this paragraph occurs: "To my knowledge nothing in the way of investigation of the extent or position of the series of creeps in the South Mine has ever been undertaken, there being so little ground or ore between them that a heavy fall in either of them would break the separating ground and make them one, as has evidently happened, seeing that in the South Mine a movement can be traced from surface down to 700-foot level";—is that correct? *A.* I think it is incorrect to a large extent, because we have inspected the workings, except the 400 where it was impossible to get at it.
4627. *Q.* Is that the creep of 1895? *A.* Yes, on the western side.
4628. *Q.* Has the fall of May, 1901, been investigated and secured? *A.* Yes, at the time with the exception of the further end. A small corner, about 60 feet away.
4629. *Q.* After June of last year when that stope collapsed, was there any investigation made by the South Mine, or any filling done to the slope, or anything done to secure it—when Mr. Hebbard and you found it had collapsed? *A.* No.
4630. *Q.* Evidence was given that the mullock tunnel was a bit affected; it is in solid ground, is it not? *A.* Yes.
4631. *Q.* You did not expect that to show much signs? *A.* No.
4632. *Q.* During the half-year ending 30th June, could you put in as much mullock in the South Mine as you would like to have for its security? *A.* No, not quite—I mean both ends of the mine.
4633. *Q.* The directors stated that more mullock would have been used during that period if it had been available? *A.* Yes.

Witness—S. Mayne, 30 March, 1903.

4634. *Q.* And that for some time past it had been the cry of the management that they had not sufficient mullock? *A.* Some places we might have worked, but could not work them. We had several places idle.
4635. *Mr. Wise.] Q.* Do you know of any stopes in the Central Mine below the 400 and 500 levels? *A.* I have seen them as I went there.
4636. *Q.* Was it an open cut close to the boundary;—have they an open stope anywhere near their boundary? *A.* I do not remember.
4637. *Q.* The place where the men had to take out their tools at the 300;—did both miners leave that place just at the same time? *A.* Yes, a watch was left in both mines.
4638. *Q.* Who was the mining inspector then? *A.* Mr. Hebbard, I think.
4639. *Q.* Was anything done to secure that place in either mine? *A.* I do not think so.
4640. *Q.* This stope where the men were killed in 1901, was there anything done in that stope after the bodies were recovered? *A.* No.
4641. *Q.* What was the size of the stope? *A.* About 50 feet long north and south, about 24 or 25 feet wide, timbered up with square sets.
4642. *Q.* Why was it not filled up with mullock? *A.* We wanted to fill the lower levels first. I used to travel through it pretty often. I wanted to fill the lower levels first.
4643. *Q.* Do you not remember saying at the inquest that it was dangerous and treacherous ground at the stope? *A.* I might have.
4644. *Q.* I suppose the inspectors had a look at it after the bodies were recovered;—did they suggest anything for you to do? *A.* They did not think it necessary, we had to put the mullock in the lower levels first.
4645. *Q.* Have the local inspectors ever ordered you to secure the boundary? *A.* No, they never had any need to. If I saw anything not safe or they did, they always pointed it out to me—I always make such a thing secure as soon as it is pointed out to me.
4646. *Q.* You were satisfied the boundaries were safe? *A.* I always did.
4647. *Q.* Do you know if the South Company received any complaint from the Central Company? *A.* No, I do not.
4648. *Q.* Do you know of any open stopes in the South Mine, close to the boundary? *A.* Not within 150 feet—that is where we are working the machines.
4649. *Mr. Edwards.] Q.* To go back to the report of Mr. Hebbard's, he says, "To my knowledge, nothing in the way of investigation of the extent or position of the series of creeps in the South Mine has ever been undertaken." Do you know what he means by that? *A.* It is incorrect.
4650. *Q.* He says that there has been creep after creep in the South Mine that only small portions of ore remain in between;—is that a reasonable statement to make? *A.* No, not a fair statement to make, a ridiculous statement.
4651. *Q.* Up to the end of 1900 you were working in the South Mine, subject to the inspection of Mr. Hebbard? *A.* Yes.
4652. *Q.* Did he ever complain to you about the unskilful management of the mine? *A.* No, he used to give me credit for the way I worked it.
4653. *Q.* Knowing the condition of both mines, did he ever warn you of the danger of injuring the Central, or say you should fill up the small cavities left by the 1895 accident? *A.* No.
4654. *Q.* Would it be possible for either mine to take up the crushed ground above the 350-foot level? *A.* They could not take it up—they may have sunk a mullock pass down through.
4655. *Q.* Would that not require joint action? *A.* Yes.
4656. *Q.* Was that ever suggested by any mining inspector? *A.* I do not know, I was not in the mine then.
4657. *Q.* Since you became manager, has it ever been suggested? *A.* No.
4658. *Q.* One mine could not put it down by itself? *A.* It would not be fair.
4659. *Q.* With reference to the mullock pass which runs to the old stope, about 200 feet from the boundary, could it be in any way the cause of the creep? *A.* There is a portion of hard ground between that and the creep.
4660. *Q.* That is 200 feet away? *A.* Yes.
4661. *Q.* When you said the fall above the 400-foot level would crush the gangways, you did not refer only to the gangways in the South Mine—you meant in the Central as well? *A.* Yes.
4662. *Q.* And if they were filled, they would create the void above? *A.* Yes, it would take some thousands of yards to fill up these places.
4663. *Q.* Is there any possibility of the ground between the 500 and 400 levels crushing down? *A.* I believe it is standing on top of the 500 level now.
4664. *Q.* Is there any indication as far as you can see, that a cavity was left after the 1895 fall, at the 350 level? *A.* No. It is too far away from it.
4665. *Q.* What solid ground is there? *A.* The higher you get up the wider it gets.
4666. *Commissioner.] Q.* In your mine do any men work by themselves? *A.* No.
4667. *Q.* What is the system? *A.* There are always two together, unless they are trucking ore from the ore shutes, or anything like that. In mullocking, we always run two together, and we put a miner to tap the chute for them to fill the trucks.
4668. *Q.* How often do the mining inspectors inspect these mines, how often in the month? *A.* They average twice a month, and sometimes more.
4669. *Q.* Do you think it is sufficient, as far as you can judge? *A.* Yes, I should say so, if they cannot see in once a fortnight what is necessary, they ought to.
4670. *Q.* Do you think it is quite often enough? *A.* Yes, it is quite often enough for me—that day is waste time for me as I generally go round with them, and then I have to give the men instructions after.
4671. *Mr. Hall.] Q.* About this stope where the accident of 1901 occurred on the 14th floor, is that stope not 75 feet by 40 feet? *A.* I think on the 13th floor there was an intrusion, and by the time the intrusion was considered it would be about the 15th floor and 20 feet off the 500 level.
4672. *Mr. Wise.] Q.* You were night foreman some time ago, do you remember who was the mining inspector then? *A.* I do not think there was any inspector at the time I was there.
4673. *Q.* Was not the late Mr. Rewe there? *A.* I was at the South at that time.
4674. *Q.* Do you have to show the mining inspectors around? *A.* They come round themselves.
4675. *Mr. Edwards.] Q.* You have no objection to the appointment of more mining inspectors? *A.* No.

[Witness left.]

James

James Hebbard, recalled, sworn, and further examined :—

4676. *Commissioner.*] *Q.* I would like to know whether, in view of the large extent of the recent movement it will not be advisable to leave a floor between that creep and future workings? *A.* Do you mean that we should miss one level.

4677. *Q.* Portion of a level, so that the men working underneath will have the protection of that floor? *A.* In the light of the last movement I might point out that above this B 5 and gangway a portion fully 30 feet in thickness left as a supporting arch collapsed after the mullock had run from it.

4678. *Q.* You think then it would not be any great support? *A.* It would depend upon the shape of the arch. Some portions of our lode is 100 feet wide—it would not be much use leaving a supporting arch there with the chance of merely supporting it unless you left 50 or 60 feet and arch the bottom.

4679. *Q.* At the boundary the lode is not so wide? *A.* At the 500 level it is nearly 300 feet wide, the widest in Broken Hill.

4680. *Q.* It is a matter that could only be judged by the size and character of the lode? *A.* That is all.

4681. *Q.* That would have to be considered? *A.* Yes.

[Witness left.]

David Milne, called in, sworn, and examined :—

4682. *Commissioner.*] *Q.* What is your name? *A.* David Milne.

4683. *Q.* You are an inspector of mines for this district? *A.* Yes.

4684. *Q.* What mining experience have you had? *A.* About twenty-five years altogether.

4685. *Q.* How long in Broken Hill? *A.* About four years altogether. In 1890 and then again in 1899, and three years this time.

4686. *Q.* Of course I need not ask you if you have been through those mines? *A.* Yes, pretty frequently.

4687. *Q.* You gave evidence before the Commission held by Mr. Wade? *A.* Yes.

4688. *Q.* That was on the fall that took place in the South Mine? *A.* Yes, on the 24th May, 1901.

4689. *Q.* In June there was some movement? *A.* Yes, Mr. Godfrey was working that end of the mines, and we heard from King that there was a movement in the south end of the Central Mine. We visited this place and found they were sinking a winze to locate the cavity at the bottom of the old south shaft. There were some cracks on the cross-cut and on the side of the stope at the 400 level close to the winze. They reckoned they would have to cut the winze about 40 feet to get to the cavity so as to be able to fill it up. After sinking the winze I saw it two or three times, and after that the winze tapped the cavity, but I did not see the bottom.

4690. *Q.* Were you at the bottom of the South shaft? *A.* Yes.

4691. *Q.* In which direction was it trending? *A.* It had a trend south and east. According to the pitch, we thought it would just about tap it at 40 feet, it tapped it at 44 feet. After that June creep we went through the South Mine as well and saw that a portion of the 500 level had come down, the old stope had carried away where it had in 1901 and was filled up. I wanted to go into that stope but Mr. Mayne told me there was no chance of getting in there. That was at the back of the 500 or 600 where the fall was in 1901. I knew there were two roads, one from the 500 level and one from the 600, we found it was filled up with loose ore, and Mr. Mayne said there was no way of getting in through the 600 level. It was all gone.

4692. *Q.* Did this opening trend towards the scene of this accident? *A.* Yes; I had an idea that pitch would bring it somewhere close to that.

4693. *Q.* King made some complaint to you about the ground not being safe? *A.* Yes; he did not think it was safe to work in. We examined it and found that King and his mates had marks at the 400-foot level, but there was no sign of movement. I told them to keep a good watch on the marks, and if they saw the slightest movement, to get away from it. On another occasion they told me there was no sign of movement, and the work was gone on with. We suggested a communication should be put into the South Mine so as to have another escape, if necessary.

4694. *Q.* Were you through the opening? *A.* No.

4695. *Q.* I suppose there was a certain amount of danger? *A.* After the movement you could not tell. The only way was to watch the marks and see if any further movement should take place.

4696. *Q.* There was no talking to guide you? *A.* No.

4697. *Q.* In October you had some intimation that a movement had taken place? *A.* Yes. On the morning of the 8th October they sent for me. I saw it was from the 400 level. I could not tell how it was going. It all appeared to be going south-easterly, and I have made a further investigation, and think I am pretty clear it has gone south-easterly. I examined the top and made inquiries, and found that the fall had been from the south shaft about 240 feet down. There had also been a break at the 500-foot level and portion of the 600 foot level—most of it trending towards the south-east—to the south boundary.

4698. *Q.* Could you find it extending to what depth in the Central Mine? *A.* I think about 600 feet was the lowest in the Central and in the South Mine, right through to the 800-foot level.

4699. *Q.* And in the South Mine, how did the creep appear there? *A.* It appeared to be towards the boundary in both mines.

4700. *Q.* You could not do anything? *A.* No, not at the first time.

4701. *Q.* You were told two men were supposed to be still in the mine? *A.* Yes. There was no hole of getting over to where they were. We went to the 400 level, and found a big cavity there.

4702. *Q.* That cavity was above the 400-foot level? *A.* Yes, in the Central. That was the first point we could start on to see if we could pick up the ground before any attempt could be made towards recovery.

4703. *Q.* You consulted with Mr. Hebbard as to what should be done? *A.* Yes.

4704. *Q.* And what was decided in the way of making an attempt to recover the men? *A.* It was decided to bridge over this cavity above the 400-foot level and make it safe, and to mullock it up afterwards.

4705. *Q.* What was the back of the cavity? *A.* All solid ground—ore.

4706. *Q.* Did the creep extend after you saw it the first time? *A.* No. I heard of some fall that took place some little time after, but it did not appear to be of any extent.

4707. *Q.* What was done immediately towards recovering the bodies? *A.* After that cavity was bridged over we put in the filling and a winze was started, and that was sunk down 60 odd feet.

4708. *Q.* That would be past where the slide of B 5 chute was originally? *A.* Yes.

4709.

Witness—D. Milne, 30 March, 1903.

4709. Q. And at that distance, did you find any timber that would lead you to believe that you were near the chute? A. The day before they knocked off there was some timber near the bottom that was on the south-east corner of the winze.
4710. Q. It appears from the evidence there was solid ground next the winze, against the gangway? A. In sinking the winze some distance it was in broken ore. I was told that was ore that had been left there, a roof of ore, and so that had all been carried away bodily.
4711. Q. When was this rescue work knocked off? A. I could not tell you from memory—some time ago now. It has not been knocked off only until further support for the safety of the men who may work in it later on can be arranged. It is not discontinued.
4712. Q. Was everything done to recover the bodies, as far as could be done, in your opinion? A. Yes.
4713. Q. You have since this creep been over the ground several times to discover what you could? A. Yes.
4714. Q. And have you found anything that would lead you to suspect the cause of the creep? A. Not further than I gave within the first two or three days. In looking round I came to the conclusion that it had been from a fall above, and that had smashed the timbers down below and allowed the mullock to run, and I concluded a second fall came to the surface, and being fairly heavy that it spread and broke the mine generally.
4715. Q. You heard the evidence of the mullockers at the 600 level in the South Mine that they felt two puffs of wind? A. Yes.
4716. Q. Would that be likely to be a fall or a run of ground? A. I think a fall in both cases.
4717. Q. Of course, the evidence of the two timber-men in the Central shows that there is no doubt about there being a very heavy fall? A. Yes.
4718. Q. And your opinion is that the cause was a fall from the upper levels? A. The first one was not very high up—it might have been up a good distance; but I think the second one came right from the surface. The first one left certain spaces, and, having room to fall, would naturally come fairly heavy.
4719. Q. In this cavity above the 400-foot level—the one we were in—there seems to be a solid back overhead? A. Yes, there was a solid back.
4720. Q. That would not take the pressure? A. I think the fall that occurred first must have occurred at the east side and made a track on that side, and allowed the stuff to run from there.
4721. Q. You know the Central Mine pretty well? A. Yes.
4722. Q. Is there any cavity that you know of that would take a large quantity of mullock? A. There are no cavities that would take a large amount; certainly when the crush came it would make space, and the gangways would take some. The old east stope at the 400-foot level would take a little mullock where the winze was sunk.
4723. Q. Do you think that sufficient to account for the cavities that have been left? A. I could not say that. A little ran away from the west stope on the south boundary A 4 and A 5. I do not think you can account for the mullock that has gone away in the South Mine.
4724. Q. In view of the cavity formed in June, there must have been some cavity for that also to run into? A. Mr. Godfrey saw that. I did not. I did not know what the cavity was like.
4725. Q. You have heard a good deal about B 5 chute;—do you think that was a fit place for men to work in, from what you saw of it? A. I saw it a week or two before the accident. I went in with Dawe. We came along from the A 4 and turned into the chute. We had to crawl in on our hands and knees to get to the chute. When we came back I said to Dawe, "You are not stinting us of mullock here." He replied, "No; we put in as much as we can get in." I said it would not be much harm if he would only leave room for travelling. He said, "This is not the way; it is only used by the mullockers to come and run the chute occasionally." I said, "Perhaps it would be better to have a little more room." He told me it was done for the safety of that particular place. I saw nothing wrong with the chute.
4726. Q. Can you give me any idea of how often you visit these mines? A. We change backwards and forwards at intervals, Mr. Godfrey and I. I think, taking year in and year out, I visit the mine about once a week; sometimes it is longer between visits, and sometimes oftener. We might have to pay attention to one mine, and might be at it pretty constantly. On the other hand, we may be at another pretty constantly.
4727. Q. Can you visit these mines often enough—in your opinion? A. That is, provided we have not got to be shift bosses, underground-managers and foremen of the mine. If we are to be inspectors we can visit them often enough.
4728. Q. Do you have many complaints from the miners? A. Very, very few.
4729. Q. They are attended to? A. Yes, always. There are a lot of the miners who are afraid to make complaints to the inspectors, they think they will be named to the managers. I have even asked the secretary of the Amalgamated Miners' Association to let us know of any complaints—and I do not think the mine managers could sack the secretary of the Amalgamated Miners Association.
4730. Q. There seems to me to be a sort of feeling between some of the miners to look upon the inspectors rather as their enemies instead of their friends? A. Some of the miners do. The more reasonable men know we are here for their protection as far as we can be.
4731. Q. Can you point to anything that has been left undone that could have been done to avoid this accident? A. No, I cannot.
4732. Q. You cannot say that anyone was to blame? A. No.
4733. Q. Is it an unusual thing for a creep of this kind to happen without the timbers talking beforehand? A. Such a thing could happen, but a sudden fall like that would crush down any amount of timber.
4734. Q. It strengthens your theory that it was a fall in the first instance? A. Yes; it would have given some warning if it had been caused by the crumbling away.
4735. Q. Can you suggest anything as to the working of the boundaries;—there seems to be a lot of doubt about the matter? A. I could not give any suggestion any further than as we wrote to the Chief Inspector of Mines, recommending that the stope should be worked together on each side or an ore pillar left between the two—each party leaving a pillar. I cannot see any other reasonable way of working it. It is not always convenient for two parties to work on the boundary.
4736. Q. In the case of Block 10 and the Central for instance;—one is at 1,100 feet, and the other is only at the 800? A. It might be years before one or the other could get to that particular level.

4737. Q. It would be better that a pillar be left until the other could work it? A. Yes; but it might be lost altogether.
4738. Q. So long as it adds to the safety of the mine it would not matter? A. No.
4739. Q. What do you think about preventing this creep from spreading;—do you think it possible to leave a floor below the present levels? A. Yes, if left sufficiently thick it would prevent it going any further. It would mean a big loss of ore in that way.
4740. Q. Still if a movement like what we have seen might result in losing men's lives, that too has to be considered as well as the ore? A. Yes.
4741. Q. Do you think it would be safe working under this present creep? A. It will always be an ugly job; but it can be handled—broken ground like that can be handled, and they have men here who can do it.
4742. Q. About these cavities in the top levels, could anything be done to fill them? A. I do not know anything about them.
4743. Q. Could something be done with diamond drills to locate them? A. I do not think so. You might locate a big cavity in hard ground, but not in broken ground like you have in the Central. It would not be much use.
4744. Q. These old stopes are a source of danger, more or less? A. They must be.
4745. Q. They can only be filled up from the surface? A. That is all.
4746. Q. Do the old plans enable you to locate these old stopes? A. I have never seen an old plan of any of these old stopes. I believe there is one in the Central Mine prepared by Mr. Smallwood and Mr. Creswell some time ago. I have asked about them, and have been told there is no chance of getting into them to see what they are like.
4747. Q. Have you ever found a movement in any of the old stopes except the present one in any particular mine? A. In the Proprietary from some of the old stopes there is a great deal of settlement, but I do not know of any others.
4748. Q. Can you give me any idea of the proportion of mullock that should be put into a mine in proportion to the output? A. I could not give any proportion. Every man uses his own judgment.
4749. Q. I suppose there is nothing wrong with the system of working—so far as you know—speaking of the two mines? A. No, nothing wrong; they both work under good systems.
4750. Q. I take it for granted that the mullock should be put in as soon as the ore is taken out? A. It is always better and cheaper to put it in then—keep it as close to the work as you can. It saves a lot of staging.
4751. *Mr. Stee.* Q. As inspector of mines you go to these mines as well by night as by day? A. At times.
4752. Q. Do you ever give notice to these managers that you are coming? A. No.
4753. Q. Do you ever divulge any name of a miner or mullocker who might give you information that any particular mine might not be worked as it should be? A. No.
4754. Q. Is there not a rule in your department that no information given by them shall ever be divulged? A. Yes.
4755. Q. On the other hand, if any of these men came to you, would you not go as soon as possible and see any places complained of? A. Yes, I should certainly be too glad to get there before anything happened, and be the means of preventing any accident.
4756. *Mr. Hall.* Q. I take it this system of mullocking in horizontal filling as carried out in the Central is a better way of mullocking? A. You cannot always mullock horizontally. You have to take it under the circumstances of your particular work. It would certainly set much quicker.
4757. Q. The shrinkage of a completed stope done that way is less than if filled vertically? A. No, exactly the same.
4758. Q. On the other hand, if you take out your stope ten sets high, or even 100, and then fill it in with mullock, that mullock would have a greater shrinkage? A. Yes, because you would get on it sooner.
4759. Q. I think you saw the return that was put into Mr. Mayne's hands yesterday showing the amount of mullock that was sent in in the return to the mining inspectors up to the end of 1902? A. It has been made for two years back, and further back still, although I believe they missed giving us returns for a couple of years. I have the returns here.
4760. Q. Can you tell us from these returns how much was put into the South Mine for the twelve months ending 1901, 1900, and 1899? A. I can give you 1902 and 1901. In 1901 the mullock put in was 13,000 cubic yards. In 1902 it was 38,723 cubic yards. I have no returns from the South Mine for any other years.
4761. Q. Is it not a fact that during the last eighteen months the South Mine have been putting mullock into their mine in much larger quantities than they did before the fall occurred in May, 1901? A. That would be accounted for in their having better conveniences. They were rather badly fixed for mullocking appliances.
4762. Q. In the Central Mine, what was the amount of mullock put in during the same periods? A. Central, 1901, 52,483 cubic yards put in; 1902, 68,743 cubic yards.
4763. Q. I suppose sometime after the June creep you inspected the South Mine and found they were unable to get to the stopes between the 500 and 600 levels? A. Yes.
4764. Q. As mining inspector, do you know if the manager of the South has been able to get into these places between June and October? A. It came as news to me, as I have frequently asked if there was any possibility of getting through to the stope.
4765. Q. And you had Mr. Mayne's assurance that it was not possible? A. Yes; if I had known there was any means of getting through I would have been there.
4766. Q. So far as you could make out from your inspections of June last, what would that fall indicate—was it connected with the fall that occurred in May the year before? A. No; I do not think there was any connection at all.
4767. Q. Do you know how far it is from the entrance to the stope where you found it filled up in June last year—how far from where Havelock and others were killed? A. I cannot say. It is not very far—a few sets.
4768. Q. Looking at *Exhibit No. 14*, do you notice a piece of ground within a few feet of the Central boundary on which is printed "500 feet—crushed ground";—I believe in going along this drive that is labelled 500 level, in June after the creep, you could not get any further in there? A. No.

Witness—D. Milne, 30 March, 1903.

4769. *Q.* Was not that, approximately, 30 or 35 feet from where these men were killed? *A.* Judging by that plan it is. From the plan it would appear to be about 30 feet.
4770. *Q.* After that fall nothing was done to that ground? *A.* No; nor at any time since.
4771. *Q.* You said that the pitch of that cavity that you saw in the Central Mine leading from the bottom of the old South shaft on the 400 level was to the south and east;—does it not occur to you that some of the mullock of the Central Mine might have run into that cavity of the October creep? *A.* I think it must have gone there.
4772. *Q.* You do not think that the passes and gangways and drives in the Central Mine took it, but some of it must have broken through into the South? *A.* I believe when the timbers broke it got into the South. I could not say how much.
4773. *Q.* You were here when Slocum and Prior gave their evidence? *A.* Yes.
4774. *Q.* One or both of them stated that they heard a rumbling sound between the first fall and the second fall;—is it possible that the rumbling was caused by the running out of the mullock? *A.* Yes.
2775. *Q.* Have you ever visited the stope in the South Mine—the scene of the 1895 accident? *A.* No, not right through it.
4776. *Q.* Could you say what thickness of ground there is between that stope and the footwall side? *A.* No.
4777. *Q.* How high above the 500 level did that stope extend, where the accident occurred in May, 1901? *A.* A floor and a half or two floors.
4778. *Q.* Have you been able to see since the creep in June of last year whether any further fall has come off the backs? *A.* I have never been able to get into that stope since.
4779. *Q.* Can you say from your experience whether this October creep might not have opened a way up that was not there between June and October? *A.* No; I could not say.
4780. *Q.* You have heard Mr. Hebbard's theory as to the reason of the accident, do you think it is valid in every way? *A.* I suppose every man has his own idea.
4781. *Q.* Can you point out any reasons why that theory should not be supported? *A.* I think the fall must have come from the top first to crush it down. I think there must have been some force from above first to cause the pressure down below.
4782. *Q.* Would not a further fall at the back of the 525 level start such a creep as this? *A.* No; I hardly think so. There would not be sufficient space at the time I saw it last.
4783. *Q.* In your opinion it was not the B 5 chute that started this creep in any way? *A.* No.
4784. *Mr. Edwards.] Q.* Having made as full investigation as you could, would you like to go and see the stope at the 600 and 500 levels;—would it throw any special light on the subject? *A.* It might.
4785. *Q.* As far as your own personal investigations are concerned, have you any reason to alter your report? *A.* One place I should like to make more definite. What I mean is that the 500 level was practically the same after the October creep as it was at the June creep.
4786. *Q.* You think the fall took place somewhere above the 400 level? *A.* Yes. I think somewhere on the boundary—I should say the boundary levels. It was a boundary movement—that is all I can say.
4787. *Q.* In all probability arising from the old original creep on the boundary? *A.* Yes.
4788. *Q.* That would account for the rails and other things being pitched in a north-easterly direction? *A.* Yes.
4789. *Q.* And I presume there must have been some cavity or something below the 400-foot level to the north to allow that stuff to run into it? *A.* Not necessarily.
4790. *Q.* On the question of mullocking—from the nature of the ore body, which mine requires the larger quantity of mullock? *A.* The Central.
4791. *Q.* The ore body in the South runs in pipes with intervening layers of mullock or country rock—in the Central it is a body from the hanging-wall to the footwall with an intrusion here and there? *A.* Yes, that is so.
4792. *Q.* You have heard the evidence of Mr. Mayne that most of the mullock put down in 1902 went into the sets on the northern boundary? *A.* Yes.
4793. *Q.* Have you ever found Mr. Mayne refuse to do anything? *A.* No, nothing I have ever asked—always very good in looking after the safety of the mine and men.
4794. *Q.* Can you attribute the fall in the Central Mine to any want of skill or attention on the part of the South Mine? *A.* No, not to either party. I do not see any blame can be put on either of them.
4795. *Q.* I suppose the fact will remain that working the pillar and stope together is hardly a correct system of mining? *A.* I do not think it is very often done.
4796. *Q.* You know from the 800 to the 500 level there is no pillar on the boundary? *A.* I could not be too certain of that. I know the stope at the 800 is 75 feet out, but I would not be certain about higher up.
4797. *Mr. Wise.] Q.* Do you often have to visit the mines at night time? *A.* No.
4798. *Q.* How often did you visit B 5? *A.* It is a place you would not visit very often. It was part of the mine that was finished with.
4799. *Q.* How long is it since you were there last? *A.* Two or three weeks before the accident happened.
4800. *Q.* You had to crawl in to run the chute? *A.* I never say anybody running the chute, and I say if a man liked he could get into that position to run the chute. He would only have to clear away a little mullock, and he could place himself in any position he liked.
4801. *Q.* Do you think it was a fit place for men to go in? *A.* The only objection I had was the crawling in, and that the amount of filling was more than was required for the actual support of it.
4802. *Q.* Have you ever prosecuted any of the mining companies for infringement of the Mining Acts;—have you power to prosecute? *A.* I believe I have, under the new Act; but we have to get instructions from the head office.
4803. *Q.* Do you ever send down any recommendations to prosecute? *A.* I believe suggestions have been sent down.
4804. *Q.* Do you ever get reasons for not prosecuting? *A.* They weighed it out down there, and satisfied themselves that there was not sufficient grounds for taking up the matter before they would go into it.
4805. *Q.* How many men were engaged in rescue work in the Central after the accident? *A.* There were a lot; about twelve, I think. I would not be positive.
4806. *Q.* Do you know if there are any men engaged at the present time? *A.* Yes, I believe there are.

4807. *Q.* Is it not a fact that there have been no men engaged since the inquiry? *A.* There were the last time I was in the mine.
4808. *Q.* Did you ever at any time suggest to the Central Mine that they should withdraw the men from the open cut near Block 10 and Campbell's shaft? *A.* One day I think there was such.
4809. *Q.* Did Block 10 ever complain to you about the Central Mine workings? *A.* I believe they did. They wrote me a letter about it.
4810. *Q.* Is there any truth in the statement that the men had to crawl out backwards after finishing their work? *A.* If he did it is his own fault.
4811. *Mr. Hall.] Q.* Explaining your report, you said you mean to say the stope at the 500-foot level was the same after October as after June;—as a matter of fact, you could not get in to see? *A.* You could get up to the entrance of the stope, but not into it after the June or October creeps.
4812. *Q.* Turning to that part of the mine at the 500 level where the plat sheets were—you will remember Mr. Hebbard pointing out on the 19th June that the ground was stoped out more at the 500 level than at the 400, and you heard Mr. Hebbard's theory how he explains the plat sheets being in that position;—I understand you support that theory, and approve of it? *A.* Yes; there is ample proof in going to the 500 level to look at it.
4813. *Q.* Do you think from what you have seen that the October movement was connected with the June movement? *A.* I believe the June movement had something to do with the October one.

[The Commission adjourned till Tuesday, 31st March, 1903, at 10.30 a.m.]

TUESDAY, 31 MARCH, 1903.

[The Royal Commission sat at 10.30 a.m., in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

- Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.
- Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.
- Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No Liability).
- Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

David Milne, called in, re-sworn, and examination continued:—

4814. *Mr. Hall.] Q.* Yesterday you quoted from some returns that had been furnished you by the Central Mine for 1902 and 1901, of the amount of mullock put in the mine;—have you the returns showing the amount of mullock filling put into the South Mine during the years ending 1900 and 1899? *A.* I have looked up the papers and cannot find them. They may be somewhere in the office, but I could not find them.
4815. *Q.* Could you say of your own knowledge whether more mullock was put into the South Mine in the year 1900 than in the year 1902, or whether it was less? *A.* I could not say.
4816. *Q.* I take it the biggest year would be 1902? *A.* Yes.
4817. *Q.* I think you stated that King made a complaint to you about the ground in the winze being unsafe, and you examined it? *A.* Yes.
4818. *Q.* I suppose the precautions adopted by you minimised the dangers? *A.* We did the only thing that could be done.
4819. *Q.* The work was necessary? *A.* Yes, to prevent a further movement.
4820. *Q.* During the whole time of your term as inspector has the Central Mine thoroughly satisfied you with the way they filled their depleted stopes? *A.* Yes; it is a well-mullocked mine.
4821. *Q.* And that is the safest course to adopt with regard to depleted stopes that could be adopted in Broken Hill? *A.* Yes.
4822. *Q.* I think in your evidence in the fall or creep which took place in May, 1901, you stated that the fall showed there was a soapy head in these backs? *A.* Yes.
4823. *Q.* And that soapy head, after the fall in May, 1901, had been standing without being timbered for nearly two years? *A.* Yes.
4824. *Q.* Although the back may seem perfectly firm and sound to-day, such an accident as the 1901 accident may happen at any moment? *A.* Yes.
4825. *Q.* You remember going into both the South and Central Mines at the beginning of this Commission? *A.* Yes.
4826. *Q.* Do not you remember the question being asked on one of the levels as to which way the timber was trending, and Mr. Mayne said while in the South Mine that the timber was trending in towards the South Mine? *A.* I do not remember.
4827. *Q.* Has Mr. Courtney ever complained to you about the want of filling in the South Mine? *A.* Some time ago he said he did not think the South Mine was properly filled on the boundary.
4828. *Q.* He showed to you clearly that he was not satisfied? *A.* That is a good time ago. There has been a lot of filling done since in the South Mine.
4829. *Q.* Within the last eighteen months or two years the South Mine have been filled more completely than has ever been done before? *A.* As far as I know.
4830. *Mr. Wise.] Q.* I will refer you to Question No. 4809: "*Q.* Did Block 10 ever complain to you about the Central Mine workings? *A.* I believe they did. They wrote me a letter about it." I want you to get that letter. I want it for the information of the Commissioner? *A.* Very well.

John Race Godfrey, called in, sworn, and examined:—

4831. *Commissioner.*] Q. What is your full name? A. John Race Godfrey.
4832. Q. You are a mining inspector? A. Yes.
4833. Q. How long have you held that position? A. About ten and a half years.
4834. Q. How long have you been in Broken Hill? A. Since June, 1901, as inspector this time.
4835. Q. And before that? A. Previously I was here relieving Inspector Hebbard for two months in 1895.
4836. Q. You pay periodical visits to these mines? A. Yes.
4837. Q. What is your average number of visits? A. About once a week, or one visit in eight days on the average.
4838. Q. How often with reference to the Central Mine? A. I inspected the Central Mine twenty times in twenty-six weeks, and the South Mine eighteen times in twenty-six weeks—that is, approximately.
4839. Q. You were here in May, 1901? A. No. I arrived between the time of the accident and the opening of the Commission in June.
4840. Q. You visited the scene of the accident? A. Yes.
4841. Q. Do you know what level it was on? A. Just above the 500-foot level.
4842. Q. How far from the boundary? A. At that time I did not know much about the stope—it was not very far from the boundary.
4843. Q. In June of last year there was some movement in the Central Mine? A. Yes, at the 400-foot level, close to the South boundary.
4844. Q. How far did it extend in the Central Mine? A. Back to the old South shaft at the 400-foot level.
4845. Q. Were you down the cavity formed at that time? A. No; it was filled up before I got down there.
4846. Q. A winze was put in somewhere near the South boundary? A. Yes.
4847. Q. Did you go down that winze? A. Yes.
4848. Q. Were you through the winze after it opened out at the bottom? A. Yes, I went to the bottom of the winze, about 44 feet, and on the east side they had broken through about 2 or 3 feet into an old stope that was standing only about one set high and two sets wide, partially filled since the winze had been sunk.
4849. Q. Did the cavity appear a large one? A. It was in the stope. I could see it had been filled up.
4850. Q. Did the timber seem disturbed? A. No, it seemed to be standing perfectly.
4851. Q. Did you try to locate the cavity from the south side? A. Yes.
4852. Q. Could you find it? A. We went to where the accident was in 1901, and we found the gangway and the stope was closed up with broken ore; we could not get in.
4853. Q. The fact of seeing broken timber and mullock would give you an idea that a further movement had taken place in that stope? A. Yes.
4854. Q. There was nothing to connect the cavity in the Central with the movement of 1901? A. The only thing to connect it was the break of the old South shaft in the Central, the break at the bottom of the winze, and the break in the South Mine were in the same line—it would bring it out just about where it was showing.
4855. Q. Have you ever tried to get into the South stope? A. I tried on that occasion, but could not get in.
4856. Q. I believe at the time the winze was being sunk King made a complaint to you? A. Yes; he complained to us. He said he was sinking a winze and that the ground was dangerous, and asked us to go and have a look at it. I had seen the break before. I asked Mr. Milne to go with me and look at it. We spoke to the men about the danger and about the marks they put in. We satisfied ourselves that every precaution was being taken.
4857. Q. Mr. Milne suggested their putting a drive into the South boundary for a further escape? A. Yes, we did at the time, and it was done later on. We considered that if the ground moved again it might take this drive with it; we thought it well to have it done. I have never seen it since.
4858. Q. In October last you got some notice of the accident in the Central Mine? A. Yes; Mr. Milne asked me to go and look at the movement.
4859. Q. What time did you go there? A. During the day—the 8th October.
4860. Q. Did you go through the Central Mine? A. Yes.
4861. Q. What levels did you examine? A. As far as I remember we went to all the levels where the creep was showing. We went into the cavity at the 400 foot level.
4862. Q. Since this you have further examined the ground both in the Central and South Mines? A. Yes, occasionally.
4863. Q. Has there been a further movement in the ground, since you saw it on the 8th October, in either mine? A. I think there was a slight crush on some of the timbers, but nothing very extensive.
4864. Q. You know the Central Mine pretty well? A. Yes.
4865. Q. Have you been through between the 500 and 600 levels on the South Mine side? A. I have been in at the 500 and 600 levels, but I could not say if I have been down to the boundary. I have been to every working stope in the mine.
4866. Q. Is there any large stope there in any particular place—are there any cavities or unfilled stopes? A. No; I do not know of any.
4867. Q. Between the 600 and 700-foot levels? A. I do not know of any unfilled stopes there. I mean stopes that should be filled and are not filled.
4868. Q. You saw no cavities capable of holding the stuff that must have left to make that cavity at the 400-foot level in the Central? A. No.
4869. Q. Do you know of any cavities in the South Mine that would take a portion of the stuff from the cavity we saw at the 400-foot level? A. No.
4870. Q. So far as you saw of the creep, which way did it trend in the Central and in the South Mines? A. In a south-easterly direction; you could hardly say how it was trending in the South Mine, it looked like crushed down ground to me. I could not see which way it had gone. You could not see any definite marks to say which way it had gone.
4871. Q. It extended much lower in the South than in the Central? A. Yes.
4872. Q. You made a joint report with Mr. Milne as to the cause of the creep? A. Yes.
4873. Q. Have you any more recent knowledge since that would cause you to qualify or alter your report in any way? A. The only thing is, some of the witnesses gave evidence that they heard two distinct movements,

movements, and in that case I think there might have been two falls instead of one; and, as Mr. Milne explained, in other respects I do not see any reason to alter it. So there must have been old cavities in the higher levels, above the 400 levels, near the boundary of the two mines, and the fall took place high up and broke down some of the timbers—broke through the stopes and spread itself.

4874. *Q.* You know the accident of May, 1901, at the 500 level? *A.* I did not know that stope very well.

4875. *Q.* Supposing the intervening rock had broken from the scene of the accident into the Central boundary, would that have affected the mullock on the B 5 slide;—would it run out if there was a cavity? *A.* No; I do not think there would be slide enough, because it was lower down than the June creep.

4876. *Q.* You heard the evidence of the witnesses who said that at the first movement the timber above the B 5 was moving; do you think it possible that the movement into this cavity at the 500-foot level into the South would affect the timber in the Central? *A.* Yes; possibly the mullock might run out nearer the boundary, and give that a chance to go too.

4877. *Q.* Do you think that a possible idea of how the accident happened? *A.* I do not think it did happen that way. My idea is exactly as I said in our report.

4878. *Q.* As mining inspector, do you think you have sufficient time to inspect these mines? *A.* Yes; to carry out the duties of inspectors, we have.

4879. *Q.* Have you had in any complaints from workmen as to the insecurity of the ground or otherwise? *A.* Very few.

4880. *Mr. Hall.] Q.* You said you knew of no cavity in the South Mine which could take the filling from the cavity you saw in the Central? *A.* Not from the cavity I saw in the Central.

4881. *Q.* Have you been able, since June last, to inspect the stopes on the boundary between the 500 and 600 levels or the 600 and 700 foot levels on the South side? *A.* I could not inspect the 500 level, because it was crushed in; that is, above the 500-foot level. Mr. Mayne told us it was impossible to go up on the rill of the stope.

4882. *Q.* So there might have been a fairly large cavity between the 500 and 600 foot levels in the South mine which you were unable to investigate? *A.* There may have been a cavity, but I do not think so. If at all, it could not have been very big.

4883. *Q.* Do you not know that before the June creep, that from the 600 feet to the 500 foot levels in the South Mine the mine was only mullocked up some ten or twelve floors at the outside? *A.* I do not know; it was partially mullocked up.

4884. *Q.* Below the cavity at the 400-foot level in the Central Mine, your knowledge of the mine is that there were well filled stopes? *A.* Yes.

4885. *Q.* And in the South Mine, since the June creep, you could not say what they were like? *A.* I could not say definitely. They have been filling up the stopes for some time.

4886. *Q.* There could not have been a great quantity of mullock between the 600 and 500 levels in the South Mine without your knowledge of it? *A.* I think there could be a certain amount absorbed.

4887. *Q.* Do you not consider the October creep is connected with the June creep? *A.* I think that the creep in October connected itself with the June creep.

4888. *Q.* Supposing a further movement had occurred below the 500-foot level, would not that cause a sufficient angle for the mullock to run out from the Central? *A.* It depends upon where the mullock is to run out from.

4889. *Q.* Say from the direction of the B5 chute? *A.* I do not think mullock would run out under an angle of 45 degrees to any extent.

4890. *Q.* You do not think the whole of the mullock would have to run out before that country would be affected? *A.* No. I think if any mullock ran out from the Central, it would cause a movement in the vicinity.

4891. *Q.* If it ran out from the boundary, would it not drag back? *A.* Yes.

4892. *Q.* Referring to the June creep, you said that the break in the old South shaft in the Central Mine connected with the other movements,—it would be one movement? *A.* I believe so.

4893. *Q.* If such a break had occurred, and the stuff were to run out into the South Mine, would it not shorten the angle and make it run? *A.* I do not think so; it depends if the ground had settled down.

4894. *Q.* You know a creep occurred above the 400 foot level; could you say how far above? *A.* No. I know nothing above the 400-foot level. I know there must have been a very heavy fall to cause the havoc it did.

4895. *Q.* Do you mean a large piece of country fell a short distance, or a small piece of country fell a long distance? *A.* I know that after the June creep, the old South shaft was affected at the 400-foot level, and I know after the October creep it appeared again at the 220 feet; and I know it was on the boundary of the two mines, and it came to the surface.

4896. *Q.* You heard Mr. Hebbard's theory that there was a second fall in the Central Mine, and you have heard it stated by Mr. Milne that when the rescue winze was sunk, a perfectly sound body of ore had given way slightly there? *A.* I was only down the rescue winze once.

4897. *Q.* Do not you think the second fall, according to Mr. Hebbard's theory, occurred above the 400-foot level; would that have had the effect you told us you found in the South shaft? *A.* Yes; it was very likely.

4898. *Mr. Edwards.] Q.* I understand that soapy heads are not confined to the South Mine? *A.* No.

4899. *Q.* They also occur in the Central? *A.* Yes, in all mines, I think.

4900. *Q.* You did not see the heavy ground coming off the footwall at the 800 foot level in the Central Mine? *A.* I have not inspected it for about six months.

4901. *Q.* As to the causes of the June creep, you never explored it? *A.* I could not get there.

4902. *Q.* So the origin of that is purely problematical? *A.* Absolutely conjecture.

4903. *Q.* A crack of that sort might occur in the breaking of an arch over the stope? *A.* If there was working room to settle down on the timbers, it would crack.

4904. *Q.* You never saw the stope that was disclosed by the winze before it was filled? *A.* Yes, when it was half filled.

4905. *Q.* You never saw the true extent of it? *A.* No.

4906. *Q.* It is quite possible it might have originated within the boundaries of the Central Mine? *A.* Possibly a slight movement might have occurred in the Central; it is hard to say.

Witness—J. R. Godfrey, 31 March, 1903.

4907. *Q.* That stope has been filled for some years, and a settlement might take place in the mullock? *A.* It depends upon how it was filled. If it was gradual, it would be absorbed day by day.
4908. *Q.* It would not be possible for the arch to crack? *A.* I do not think that stope was the cause of the break.
4909. *Q.* If a fall had taken place at the 400 foot or the 500-foot levels in the South, do you think men working at the 600-foot level in the stope 30 feet from the boundary would have had any warning? *A.* If the break had been below the 400 foot level, the South Mine timbers would have given warning long before.
4910. *Q.* One of the timber men in the main drive at the time of the creep taking place said he had been there five minutes before the creep in the gangway into the Central at the time; do you think a fall of that sort taking place would have given some warning by the timbers talking? *A.* Yes. If the creep had been below the 400-foot level, the timbers would have given warning.
4911. *Q.* If there had been a heavy fall on the boundary, do you think the men who were at the lower level would have been above ground? *A.* If it was heavy, it would have closed the gangway at the first break. I think the rush of air would have killed the men; that is, if the fall had taken place between the 400-foot and 600 foot levels in the South Mine.
4912. *Q.* You have read Mr. Slee's report? *A.* Yes.
4913. *Q.* He says, "In my opinion, no human being is capable of stating positively how and where the first movement in the last creep took place";—can you say where it originated? *A.* No, I cannot tell, because I do not know enough of the old workings. No one, unless they know the old workings, can say how it occurred.
4914. *Mr. Wise.] Q.* Do you know anything about B 5 chute? *A.* No, I do not.
4915. *Q.* You have never inspected this B 5 slide chute? *A.* I do not remember inspecting it. I do not think it is a place a man would go to inspect very often. I know where it was very well.
4916. *Q.* Have you ever recommended any mining company or miner to be prosecuted? *A.* I have reported to the Department cases in which I thought there was infringement, and left it to them to say whether proceedings should be taken.
4917. *Q.* With what result? *A.* In some cases they thought there was not sufficient evidence. One reply was to that effect.
4918. *Q.* In that case, was it against one of the companies or a miner? *A.* A miner.
4919. *Q.* Do you know the difference between Block 10 and the Central Mine levels? *A.* About 36 feet difference.
4920. *Q.* Any extensive stoping carried on in Block 10 boundary since you have been here, on the Central side? *A.* Yes.
4921. *Q.* Could you give the Commission any idea of the extent of the stopes? *A.* I cannot say exactly. I know they are a considerable distance. The ordinary size of a stope.
4922. *Q.* On *Exhibit No. 2*—what is the size of the stope on the boundary? *A.* About 10 sets.
4923. *Q.* According to that plan they have gone in on the boundary? *A.* According to that plan they have.
4924. *Q.* Could you tell me before the stopes were taken out at the 500 and 600 foot levels whether Block 10 main gangway was where they were working? *A.* Block 10 was working before the Central Mine.
4925. *Q.* Do you think it tends to the safety of Block 10 for the Central to go 10 feet above them with their stopes? *A.* I do not think so, if they block up well with timber.
4926. *Q.* Was it you or Mr. Milne who suggested that men be withdrawn from the stope in the Central Mine near Campbell's shaft? *A.* I did not.
4927. *Mr. Stee.] Q.* Is it not a fact that you are to send monthly duty returns to the head office of all mines you go down on Broken Hill? *A.* Yes.
4928. *Q.* Is it not a fact that you have frequently been four times a week in one mine, and have not visited another mine during that week? *A.* Sometimes.
4929. *Q.* And you regulate your inspections according to the requirements of the mines? *A.* Exactly.
4930. *Q.* Do you ever find, when you give notice to the managers or verbal notice to the shift bosses, that they are against you in any way or do not comply with your requests? *A.* I have never had them refuse to do anything I asked them yet.
4931. *Q.* Do you find in any way that they do not look after the safety of the men placed under them? *A.* I think much more care is taken in Broken Hill than on any other mining field I have ever been in.
4932. *Q.* Broken Hill mines are the most extensive and most ticklish that any mining manager could undertake to handle? *A.* Yes.
4933. *Q.* You and Mr. Milne visit these mines not continuously, but you each have your district? *A.* Yes.
4934. *Q.* You have the south end and he the north end, as the case may be? *A.* Yes.
4935. *Q.* And you change over every six months? *A.* Yes.
4936. *Q.* During an accident or any important matter such as a creep, you both go together and consult over matters? *A.* Whenever anything serious takes place one goes to the other and consults with him.
4937. *Q.* If any miner or mullocker came to you and told you any particular mine was dangerous, would you say to the shift boss or anybody, "John Smith told me so and so"? *A.* I never mention names.
4938. *Q.* You know there is a fixed rule that the name of an informant will never be divulged? *A.* Yes.

[Witness left.]

William Henry John Slee, sworn, and examined:—

4939. *Commissioner.] Q.* What is your full name, Mr. Slee? *A.* William Henry John Slee.
4940. *Q.* You are Chief Inspector of Mines in New South Wales? *A.* Yes.
4941. *Q.* What experience have you had? *A.* About forty-eight years.
4942. *Q.* All in Australia? *A.* Yes.
4943. *Q.* In what parts? *A.* Eighteen years a common working miner, about five years mine manager, quartz crusher, and I was the first mining inspector in New South Wales, and I am now Chief Inspector and hold several other offices in the Department of Mines. My Inspector of Mines position I have held for twenty-seven years.
4944. *Q.* You visit the mines at Broken Hill on various occasions? *A.* Yes, I have been here frequently.
4945. *Q.* You came up shortly after the October creep? *A.* Yes. 4946

4946. *Q.* And you inspected the Central and South Mines at that time? *A.* Yes. I inspected the mines and got the different opinions of the parties concerned, and I wrote a report to the Government which was published and laid on the table of the House. I do not see that I can alter that report in any way.
4947. *Q.* That report is in evidence, *Exhibit No. 9*;—you have learned nothing to make you change your opinion in any way? *A.* I have heard the evidence, and I see no reason to alter that report in any way.
4948. *Q.* When you came up at that time some effort was made to recover the bodies of these unfortunate men? *A.* Yes, I talked to the men and ascertained that they had partly volunteered and partly went to work for the little extra pay they received.
4949. *Q.* As far as you know, was everything done that could be done to recover the bodies? *A.* Yes. The ground was very loose, and they had to be very cautious how they worked in it. It was very dangerous work to perform.
4950. *Q.* You have two inspectors here? *A.* Yes, Messrs. Milne and Godfrey.
4951. *Q.* Can you tell me what their duties are? *A.* They are at all times to be in attendance by day or by night, to go through the whole of the mines—to different parts of the mines—and see that everything is kept safe.
4952. *Q.* Do you think that two inspectors are sufficient to do the work necessary? *A.* I think it would be a calamity to the working miner to have too many inspectors in any mining centre for the reason that the managers would become mere puppets in the hands of the inspectors, perhaps more careless matters would be carried out. Ultimately the whole of the management of the mines would be thrown on the inspectors, and the mines would ultimately be managed by the Government, and for that reason there should be no more inspectors of mines in this district.
4953. *Q.* You think if we had too many mining inspectors they would ultimately be brought to the level of shift bosses? *A.* They would become mere puppets in the hands of the managers and shift bosses, or anybody below them.
4954. *Q.* I suppose you get reports from your inspectors constantly? *A.* Yes, every month they send in returns, and I go through them. They send monthly reports of the doings of the mines.
4955. *Q.* You have always moved to have extra filling put into the mines? *A.* Yes.
4956. *Q.* You have impressed that on the inspectors here? *A.* Yes.
4957. *Q.* Have you had any complaint from the inspectors that the South or Central Mines were not properly filled? *A.* No, I have had no complaints. The cause of this creep may have occurred some years ago. The only letter I have states that a creep took place between the South and Central Mines, and I took it for granted that was on the boundary.
4958. *Mr. Hall.] Q.* You received no complaints from the inspectors;—did you not about the end of August, 1897, receive a letter from Mr. Inspector Hebbard complaining of the manner in which the South Mine had worked their boundary in breach of an agreement;—no action was taken by you on that letter? *A.* No.
4959. *Q.* You agreed with the sentiments expressed in that letter? *A.* Yes; but, it being a private arrangement between the managers, I considered it would be exceeding my duty to interfere. If it was made official, it would be a different thing.
4960. *Q.* Do you not think as Chief Inspector of Mines you should have power to regulate the working on the various boundaries? *A.* The Chief Inspector of Mines has that power under the Mines Inspection Act. The 37th section of the Act gives more power than one man should have over another. I think we have ample power.
4961. *Q.* I think from the days that Mr. Hebbard was Mining Inspector he has advocated the system of pillar and stope, as well as timbering these depleted stopes? *A.* Yes; in my opinion, Mr. Hebbard has been a good Inspector of Mines, and will always make a good mine manager.
4962. *Q.* You remember sending out your circular to the various mine managers in 1897? *A.* Yes; and they complied with it very well.
4963. *Q.* One of the methods you advocated was well mullocking? *A.* Yes.
4964. *Q.* And were not the Central Mine more assiduous in putting in mullock? *A.* Yes.
4965. *Q.* To the satisfaction of everyone? *A.* Yes.
4966. *Commissioner.] Q.* In mines of this sort, can you say in which way you think it would be safe to work the boundary? *A.* I have not been much about the boundaries. I have only been two or three times, and a person who had not the opportunity of becoming thoroughly acquainted with the boundaries could say very little about them.
4967. *Q.* Do you think clause 37 of the Mines Inspection Act gives power enough as regards boundaries? *A.* Yes. I think, according to the terms of the Act, we can compel them.
4968. *Q.* Each inspector might have different ideas as to how they should be worked and could only interfere when the workings were considered dangerous? *A.* Yes. He has enormous power.
4969. *Q.* One inspector might think one mode dangerous and another might think it safe? *A.* It is always dangerous if one takes it out and the other leaves it.
4970. *Q.* So the inspectors have power to stop one mine from working up to the boundary? *A.* I would not hesitate to take that power under the Act. I think the successful working of the boundaries of these mines is by leaving the pillars or blocks.
4971. *Q.* Do not you think it better to fix by legislation a mode of mining on the boundaries? *A.* In the coal-mines they always leave blocks or pillars. In Victoria they used to take them out and throw a little mullock in.
4972. *Q.* Could you suggest anything to get over the present difficulty? *A.* I do not think you could work these mines on a better principle than they are worked now. If the different managers would talk things over and work on the boundary on both sides, there would be nothing dangerous. There certainly will always be accidents, and everyone must take a certain amount of risk.
4973. *Mr. Wise.] Q.* Were you surprised to hear that twenty-seven mullockers were in the mine without a competent miner in charge? *A.* I heard the men's evidence here. Yes.
4974. *Q.* Can you suggest anything that will be likely to prevent a recurrence of the creeps? *A.* I would suggest that there be plenty of room for escape, and that the men should be able to walk from one mine to the other. I believe each man should be taught that if a fall takes place at a certain place he is to walk over there

Witness—W. H. J. Slee, 31 March, 1903.

4975. *Q.* You have a list of the accidents happening in Broken Hill? *A.* Yes, it is here; it is in evidence. A list of all the accidents in the State, both fatal and serious.
4976. *Q.* Could you say if any of your mining inspectors in Broken Hill ever recommended you to prosecute miners or mining companies for infringements of the Act? *A.* Yes; but we decided that as we had lost one case under the old Acts we could not try any more until we had greater power, and we now have it under the new Act.
4977. *Q.* You have never prosecuted anyone here? *A.* No, we have never had occasion to yet.
4978. *Mr. Hall.*] *Q.* You heard Crimp give his evidence;—do not you think a man with twelve or fourteen years' experience is sufficiently competent to be in charge of mullockers? *A.* He said here he was not a miner, and knew nothing about mining.
4979. *Commissioner.*] *Q.* Crimp was asked at Question No. 291, "Have you had any previous experience?" And his answer was, "Yes, thirteen years in the Central Mine altogether from the brace to the face, also on the plats and on timbering;" and, in reply to Question No. 292, he said, "I worked in the face at various times";—do you not think a man with that experience is sufficiently competent a miner to be in charge of mullockers? *A.* Yes, if he had that experience, he is.
4980. *Mr. Wise.*] *Q.* You heard the evidence about the gangway at B 5 chute. Do you think from the evidence that was a fit roadway for the men to work in? *A.* According to the evidence, I think it was only done for the safety of the men; if the mullock had been less, it might have been better. They were trying to do too much. If they had taken a little mullock away, they would have had room.

[Witness left.]

David Milne recalled, re-sworn, and further examined:—

4981. *Commissioner.*] *Q.* You produce certain letters asked for by Mr. Wise? *A.* I produce copies of letters—(1) Copy of letter from Manager of Block 10 Mine to myself, dated 24th October, 1902. [*Put in and marked Exhibit No. 33.*] (2) Copy of letter from Inspector Milne to the Manager Block 10 Mine, dated 24th October, 1902. [*Put in and marked Exhibit No. 34.*] (3) Copy of a notice served on the Manager Central Mine, from Inspector Milne, dated 24th October, 1902. [*Put in and marked Exhibit No. 36.*]

[Witness left.]

Thomas George Sweet, called in, sworn and examined:—

4982. *Commissioner.*] *Q.* What is your full name? *A.* Thomas George Sweet.
4983. *Q.* You are manager of the Consuls Mine? *A.* Yes.
4984. *Q.* And have been for how many years? *A.* Four and a half years.
4985. *Q.* You have had an extensive mining experience in various parts of the world? *A.* Yes, about twenty-eight years.
4986. *Q.* And held a position under the Government? *A.* Yes; I was Inspector of Mines under the Government of British Guiana. I also was in charge of mines on the Rand, the Transvaal, South America Central America, and South America.
4987. *Q.* Have you ever been in charge of any lode similar to that of Broken Hill? *A.* Not so large.
4988. *Q.* Or of similar character? *A.* No.
4989. *Q.* What is your experience of boundary workings? *A.* I do not think I have come in contact with any except in Germany. The German law gives the power to the Government to say how much ground shall be left on the boundary.
4990. *Q.* In mines such as we have here, should such a power be advisable? *A.* I certainly think so; they should have the power to say how much ground should be left on the boundary, and also in the case of arches and pillars, there they should also be able to step in.
4991. *Q.* That is, the Government should have the power to say that no boundary should be worked without being supervised by some Government officers? *A.* The responsibility is then taken off the companies. I say as regards encroachments, the Prussian law is similar to the law on the Continent. If two parties are working on the boundary, and one encroaches, the Government sends its officers to see how much the encroachment is, and to ascertain how much and the value of the ore extracted; the party encroaching is then liable to a penalty of \$300 00 for the encroachment, or three months in gaol.
4992. *Q.* Just look at the plans of the mines. You will see the extent of this creep, it extends for 290 feet. Have you ever known a creep of those dimensions? *A.* No.
4993. *Q.* Could you suggest anything that might be done for the safety of the miners in the future? *A.* The only thing I can see under the circumstances would be to leave a tremendous arch.
4994. *Q.* Do you think it could be done? *A.* It could be done by sacrificing a lot of ore.
4995. *Mr. Slee.*] *Q.* Have you ever had experience of, or seen mines as extensive as at Broken Hill? *A.* No.
4996. *Q.* And do you think an arch could be left in a lode 300 feet? *A.* I do not see why it could not.
4997. *Q.* How would you leave that ore standing afterwards? *A.* It would be taken out at the end of the life of the mine.
4998. *Q.* A system of closely timbering, if carried out by both mines on both sides of the boundary, would that not have the proper effect? *A.* If timbered and properly filled up it should. I do not think you could adopt a better system than close filling.
4999. *Mr. Hall.*] *Q.* Do you think the system being followed by some of the mines in Broken Hill of extracting the ore on the boundary, is a proper system? *A.* I do not think you should rush to the boundary. There should be a block of ground left there.
5000. *Q.* If a mine were to stope out all the ore on its boundary for a great number of feet, they must be prepared to expect creeps to occur later on? *A.* Not if the two parties were to do it, one on each side.
5001. *Mr. Edwards.*] *Q.* You have not been down either of these mines, and you cannot therefore express an opinion of them in particular? *A.* No, I have not been in either of them.
5002. *Mr. Godfrey.*] *Q.* You say the Government should have power to step in and say what size pillar should be left? *A.* Yes.
5003. *Q.* That means the local inspector shall step it? *A.* Yes.

5004.

5004. *Q.* In that case should the Inspector not have some stated width laid down by the Government, and being armed with that, be able to say "Here is the regulation," instead of being left to take the responsibility of deciding what size the pillar shall be? *A.* It would all depend upon the lode and the surrounding circumstances.

5005. *Mr. Slee.] Q.* You think a hard and fast rule could not be adopted. *A.* No, certainly not. It should be left to the Manager and the Inspector to decide.

Charles Frederick Courtney, called in, sworn, and examined:—

5006. *Commissioner.] Q.* What is your full name? *A.* Charles Frederick Courtney.

5007. *Q.* You are General Manager of The Sulphide Corporation? *A.* Yes.

5008. *Q.* And prior to that you were General Manager of the Central Mine? *A.* Yes, for about five years.

5009. *Q.* Have you had any previous mining experience? *A.* Yes, about fifteen years.

5010. *Mr. Hall.] Q.* I think about the year 1897, you had some interviews with Mr. Greenway on behalf of the South Mine with regard to the working of both mines on the joint boundary? *A.* That is so. The question arose as to leaving 25 feet of ore in either mine for the protection against workings and fire. It was left to Mr. Greenway and myself to arrange, and we arranged that we should leave that amount of ore on each of our boundaries. We left that amount for some little time when we found that the South Mine were working to the boundary. I drew their attention to the fact that they were not keeping to the arrangement, and I communicated with the Inspector of Mines asking him to do what he could to get them to keep to the agreement, which was a good one. On mentioning the matter to Mr. Greenway, he said he regretted that he could not keep to the agreement as they were short of ore, and in consequence they worked up to the boundary and took the ore out.

5011. *Q.* And I understand an absolute agreement was entered into between you? *A.* Not in writing, but a verbal honourable understanding. He explained he was unable to keep to it, and he had to take out the 25 feet.

5012. *Q.* Did he ever deny to you that that agreement had been made? *A.* No.

5013. *Q.* With regard to the filling of the workings of the South Mine near the boundary, did you ever have a conversation or any communication with Mr. Greenway or Mr. Howard as to the necessity of the South Mine mullocking their stopes? *A.* Knowing that the South Mine were raising the whole of the ore, which was friable and easy to work, on the boundary at every level—I spoke to Mr. Greenway as to putting in filling as quickly as possible, and after he left the Company I spoke to Mr. Howard, impressing upon him the necessity of filling as quickly as possible the stopes adjoining our mine. I may mention that previous to Mr. Greenway leaving the Company, there was a slight movement in the old creep that opened to the surface just on the boundary; it had been observed that the ground had gone down further, and I feared—knowing that there had been a very severe accident some twelve years before—the liability of there being a further movement. On investigating the matter and talking it over with Mr. Mayne, he said he had looked into it, and there was no danger at all.

5014. *Q.* At that time Mr. Greenway was Consulting Engineer to the South company? *A.* Yes.

5015. *Q.* Was it on one occasion that you had to urge upon the South company the necessity of mullocking their depleted stopes, or was it frequently? *A.* On several occasions I mentioned it.

5016. *Q.* Do you know Mr. Molesworth Green, the Managing Director of the South Company? *A.* Yes, the Chairman of Directors. When in Melbourne about eight months ago he happened to come into Gibbs Bright's office when I was there, and in speaking to him about mining work generally, I mentioned to him the necessity for their putting in as much filling as possible in the stopes on the boundary of the mines, as I had previously mentioned it to Mr. Howard.

5017. *Q.* I understand you were so impressed about the necessity of the stopes being filled that you made some arrangement with Mr. Howard or someone for putting mullock into the South Mine between the 700-foot and 600-foot levels? *A.* Mr. Howard stated that he had considerable difficulty in getting his filling arrangements completed, as their drive had broken down, which had hindered them very much, and I suggested we should fill in the stopes whatever they should require, as it would give us no difficulty whatever. An arrangement was consequently come to that the price should be 1s. per ton—the yardage was to be arranged between the two surveyors, mutually, who should certify as to the quantity put in. Shortly after this we commenced, and after about 170 sets, or 1,200 yards, had been put in, we were told to stop.

5018. *Q.* Was this arrangement ever made for a certain number of sets? *A.* Not to my knowledge. We were prepared to put in as much as was required to fill their stopes.

5019. *Q.* Mr. Mayne, in his evidence, stated the arrangement between you was that 100 sets should be filled by the Central only? *A.* On one occasion Mr. Mayne and Mr. Howard and I were discussing it, but I have no recollection of any fixed quantity being agreed upon. It was left to them to say when they had sufficient in to fill and thoroughly protect the stopes.

5020. *Q.* Would the filling of 100 sets only be of any practical value at all? *A.* I doubt if it would be any good whatever. I was extremely surprised when they asked us to stop filling.

5021. *Q.* Do you know yourself if the Central met any objection from the South as to putting in the filling? *A.* They impressed me by hesitating slightly; but that could only be my impression.

5022. *Q.* Do you recollect any occasion when the South Mine were drawing mullock from some place below the surface in their mine where it was running away, complaining to any of the officers of the South Mine as to that? *A.* Yes; either the mullock winze or the drive collapsed in the South Mine, and they went on drawing. We received advice that it was running out and leaving a cavity, we could not tell where, or the size of it.

5023. *Q.* Was anything said about timbers? *A.* My recollection was that surprise was expressed that no timber appeared in the chute where this mullock was being drawn from. I said it was not at all likely that it would appear, as the filling was simply running out from the various timbers.

5024. *Q.* This filling was not accounted for by being put in from the surface in any way? *A.* No.

5025. *Q.* At the time the Central started, was there any mullock in this stope, or was there timber there only? *A.* It was timbered up, and there was a little filling about the base, which was solid. It was mullock from the ore that was abstracted, a mere tea-spoonful, as it were.

Witness—C. F. Courtney, 31 March, 1903.

5026. *Q.* What would be the effect of filling a stope of such a height, extending from the 600-foot to the 700-foot;—would there be any shrinkage? *A.* A very considerable shrinkage, and the tendency would be to draw the timbers towards the centre. That is away from the backs—that is always known in mining.
5027. *Q.* Can you tell us if it was a matter of great concern to the Central, prior to 1901, the small amount of mullock filling that was put into the South? *A.* It was of serious importance, inasmuch as they were on the boundary of our mine.
5028. *Q.* You know the mullock quarry alongside Piper's shaft? *A.* Yes.
5029. *Q.* Would it be a difficult matter to approximately calculate the contents of the material taken out of that quarry? *A.* Not a difficult matter at all, you could get near enough for all practical purposes.
5030. *Q.* That quarry was used by the South Mine for obtaining mullock? *A.* Yes.
5031. *Q.* You know the pillar that had been left by the Central Mine in consequence of your agreement with Mr. Greenway, and you know the nature of it;—when the South Mine took away their pillar at that place, are you of opinion that it was a burden or a prudent thing to leave 25 feet of a pillar on your side of the boundary? *A.* It was very prudent; it was discussed many times as to whether it should be desirable to leave it or take it away and fill with mullock.
5032. *Q.* It was worked in Mr. Rowe's time;—it was not a matter of work done in the last few months? *A.* No, not by any means.
5033. *Q.* It was replaced by well-mullocked timbers? *A.* Yes, well mullocked.
5034. *Q.* You have not been down the Central Mine since your return? *A.* No.
5035. *Q.* You knew it thoroughly before you went away;—could you give us any theory as to how this accident occurred? *A.* My opinion is that it originated in a cavity on the South Mine about the 500 foot level—either a little above or below—it is difficult to locate it absolutely. The back came down with the first movement in that region.
5036. *Q.* What would be the effect of that fall? *A.* It would immediately crush in the timber of the remaining stopes, and break down the timber and filling of both the Central and South Mines, and allow the filling to run into the cavity from the Central.
5037. *Mr. Edwards.] Q.* You express that from your memory of the underground workings of the Central, without inspection? *A.* Without inspection.
5038. *Q.* Some of the trend of the fall is in a vertical direction—at the 500-foot level it extends some 40 feet further to the north than at the 400;—would you attribute that to the same cause? *A.* Yes.
5039. *Q.* The plat sheets at the rescue winze were found about 12 feet in a north-easterly direction from where they had been—32 feet from the level where they were originally;—what is your explanation of that? *A.* The angle of repose is about 35 degrees to 38 degrees, and it is well known that the pull, once you start it on the angle of repose, is considerable. The direction of the movement was to the south; that means that this was an opening [*illustrating*], and it runs in this way and fills the cavity.
5040. *Q.* Would it not go perpendicularly? *A.* No, it will follow into the vacant space. Here it is all timbered, and that rather accentuates it. If you could get into that you would find that it is hanging over—so.
5041. *Q.* There must have been a cavity for that ground to go into? *A.* If the whole body moves in a southerly direction, it must leave a space behind it where the timbered stope ends and the solid ground begins, which was the condition at this point. Directly a movement starts, there is a tendency for everything to crush.
5042. *Q.* Is it not working on too liberal lines? *A.* An enormous amount has gone into the South Mine.
5043. *Q.* Do you remember when you made that arrangement with Mr. Greenway? *A.* I would have to refer to the letters. I think that letter of 10th May, 1897, will be about it.
5044. *Q.* And in August the Inspector writes to say that the agreement was broken? *A.* Yes; it was immediately broken. It was, practically, not observed at all.
5045. *Q.* When you found that Mr. Greenway had broken his agreement, did you have any communications on the subject? *A.* I communicated with Melbourne—we had a local board there then. Some correspondence was carried on.
5046. *Q.* In estimating the amount of mullock at Piper's quarry any engineer could take out the contents of that quarry? *A.* Yes. Use their instruments; it would take a little time, but they could do it.
5047. *Q.* In May, 1901, you made arrangements to fill certain sets for the South Mine? *A.* Yes.
5048. *Q.* And on 30th June, the 5th May contract was finished, and the South mullock pass was finished? *A.* I know at that time they commenced to put it in themselves.
5049. *Q.* The mullock pass in the South Mine did hang up—I understand that occurs in other mines as well? *A.* Yes.
5050. *Q.* Previous to Mr. Greenway's departure there was a further creep at the 350-foot level? *A.* Yes.
5051. *Q.* Was any arrangement made between the two companies to try and pick up the old bottoms? *A.* Never, to my knowledge. It was left as it was.
5052. *Q.* You understood it was always a source of danger? *A.* It was all crushed in.
5053. *Q.* Nothing was ever done to pick it up? *A.* Not to my knowledge; it was for them to investigate it.
5054. *Q.* You were equally interested with them? *A.* Not to my knowledge.
5055. *Q.* It was never investigated? *A.* Never.
5056. *Commissioner.] Q.* At the time of this movement, there were four men working in the South Mine, one in the main drive within about 100 feet of the boundary;—do you think if there was a fall on the lower levels these men would not be affected? *A.* I should say there would be a slight movement there. It would just depend—if the South cavity was partially choked, the larger quantity of air would come up through the Central Mine.
5057. *Q.* Crimp's idea was that this fall was between the 600 foot and 700-foot levels;—I suppose it would be very hard to tell? *A.* It would be very difficult to tell by sound. It is quite probable that a movement did take place there. It corresponds with what I was saying.
5058. *Q.* Do you not think a movement such as that would be gradual? *A.* From the evidence of the timber men, there seemed to be two movements with half-an-hour between them.
5059. *Q.* The first one affected right down to B 5, that is 80 feet from the boundary? *A.* That is the second or most extensive.
5060. *Q.* There was a very heavy fall; the timber was all moving? *A.* Mr. Hebbard says they could see through, and they could have gone in.

5061. *Q.* These two unfortunate men were in on top and could not get out, so there must have been a movement there at that time;—there must have been a considerable movement? *A.* If it once begins, and the cavity is big enough; it all depends upon what size of cavity it is going into.
5062. *Q.* Men were working in the South Mine and were not affected, they just felt a puff of wind; would that lead you to believe the fall was higher up? *A.* It is very strange they did not notice anything.
5063. *Q.* Simmons and the other men who were trucking say that the second time the wind was far greater than the first;—these men were at the 600-foot level, and they heard a rumbling sound in the far distance? *A.* Yes; the movement would, probably, be above that; about the 500-foot level, and they would not feel much wind.
5064. *Q.* What I mean is this: There has been a movement back 290 feet at the 500-foot level; would it be possible for that to run into the South Mine? *A.* The whole of that has not gone into the South. Once you start it it will go on. It is tightly locked by pressure. It pulls the backs.
5065. *Q.* As to the boundary question, does it not appear to you to be very unsatisfactory. *A.* I tried to manage it once and failed.
5066. *Q.* At the Proprietary and Block 10, they have some arrangement as to pillars? *A.* I do not know.
5067. *Q.* Can you suggest anything? *A.* In our case, from the 800-foot level up, it is impossible. There should be a mutual agreement between the managers and the local inspector who should confer and draw out a formal agreement. If 25 feet had been left on the South boundary we should not have had any trouble at all, and there would be no danger.
5068. *Q.* Do you think it safe to leave it to agreement, or should it be compulsory? *A.* Presumably, an honourable agreement drawn up and signed would be carried out.
5069. *Q.* One party might refuse to enter into such an agreement? *A.* Allowance might be made for it in the Act. That is advisable.
5070. *Q.* So far as regards the future working of the ground under the creep, could you suggest anything that would make it more safe;—there will always be a certain amount of danger? *A.* In the course of time it settles down tightly. My experience of working out 50 foot stopes is, we come up in places and completely fill. Within 30 feet of the filling up above us according to the condition of the roof we take it out in slices and gradually work backwards, and the whole is taken out without any difficulty. You must take it out in small sections and well fill it.
5071. *Q.* Originally this fall was from the boundary at the surface, and from that movement there seems to be movement ever since? *A.* If there are no cavities there will be no movements.
5072. *Q.* Can something not be done to fill these cavities? *A.* Unquestionably—investigation should be made to find out where they are.
5073. *Q.* Are there any old plans to show that? *A.* Not that I know of.

[Witness left.]

WEDNESDAY, 1 APRIL, 1903.

[The Royal Commission sat at 10:30 a.m. in the Town Hall, Broken Hill.]

Present:—

ERNEST LESLIE MAITLAND, ESQUIRE, POLICE MAGISTRATE AND WARDEN,
BROKEN HILL, ROYAL COMMISSIONER.

Mr. W. H. J. Slee, Chief Inspector of Mines, appeared to represent the Department of Mines and Agriculture.

Mr. Anthony Hall, Solicitor, appeared to represent the Sulphide Corporation (Limited), Central Mine.

Mr. J. R. Edwards, Solicitor, appeared to represent the Broken Hill South Silver-mining Company (No-Liability).

Mr. W. J. Wise, Secretary, Barrier Branch, Amalgamated Miners' Association, appeared to represent that Association.

Frederick Charles Howard, called in, sworn, and examined:—

5074. *Mr. Edwards.] Q.* You are Managing Director of the South Mine? *A.* Yes.
5075. *Q.* How long have you occupied that position? *A.* For four years.
5076. *Q.* Apart from that have you had any mining experience? *A.* I have had a large mining experience as director of some of the largest mines in Australia, extending over twenty-five years.
5077. *Q.* And is it your practice to go through the workings of the South Mine? *A.* Constantly. I have been director of the South Mine for seven years.
5078. *Q.* You have heard the evidence of Mr. Courtney that in 1897 an interview took place between you? *A.* Yes.
5079. *Q.* And he had an interview with Mr. Greenway;—what position did Mr. Greenway occupy—consulting engineer? *A.* Yes.
5080. *Q.* That was in reference to leaving 25 feet on the boundary of the mines as a mutual precaution to prevent creeps or fire? *A.* Yes.
5081. *Q.* Have you any record or knowledge of the agreement that was entered into? *A.* No agreement was entered into. I know all about it. Mr. Courtney and Mr. Greenway had certain negotiations, and an agreement was suggested, but the company would not have it, and I personally objected. It was impossible that at that stage we could leave on the boundary a large quantity of valuable ore for the convenience of the other company to go in at any time and remove the boundary ore. It would have meant the closing down of the South Mine. Mr. Courtney's evidence was absolutely correct up to the point where the negotiations stopped.
5082. *Q.* Had Mr. Greenway authority to make a binding agreement? *A.* No; he submitted it to the board.
5083. *Q.* That accounts for the fact that the interview with Mr. Greenway took place in May, and in August there is the letter written by Mr. Milne, Inspector of Mines, complaining of the breach of this agreement? *A.* Yes.

5084.

Witness—F. C. Howard, 1 April, 1903.

5084. *Q.* Within two or three months the agreement was at an end? *A.* Immediately.
5085. *Q.* I assume that if an agreement had been made between the companies it would have been kept? *A.* Yes; that is the practice of the South company.
5086. *Q.* You had other agreements with the Central, and they have been observed by both parties? *A.* Yes.
5087. *Q.* And the fact that the company in Melbourne refused to recognise the proposed agreement accounts for Mr. Greenway saying to Mr. Courtney he was very sorry he could not keep to the agreement? *A.* I know nothing of what took place between Mr. Greenway and Mr. Courtney.
5088. *Q.* We heard from Mr. Courtney that there was some talk about the late creep showing on the surface? *A.* I know Mr. Courtney saw me about it, and I went with him on the surface to see it.
5089. *Q.* No joint action was taken? *A.* Not to my knowledge.
5090. *Q.* Complaint is also made that Mr. Courtney spoke to you about the subject of filling? *A.* There was a conversation with reference to filling stopes.
5091. *Q.* And I believe it was arranged that the Central should fill certain stopes? *A.* Yes; an arrangement was made to fill about 100 sets. I am quite clear about that. The arrangement was made for about 100 sets at £1 per set, and I minuted that matter when I got back to Adelaide. I wrote this minute, "I had an interview with Mr. Courtney, and arranged for a few of our sets at the boundary to be filled by him—I induced him to reduce his price to £1 per set. This will be only a small outlay, probably £100 at the outside, and soon after it is done we shall be ready with our own mullock."
5092. *Q.* 178 sets were filled at £1 per set, and in June you had your own mullock pass? *A.* We took up the work immediately.
5093. *Q.* How many mullock chutes had you working there? *A.* Piper's shaft, No. 2 shaft, and No. 1 pass afterwards.
5094. *Q.* Piper's shaft and No. 2 were working at the same time, and you put on a third? *A.* Yes.
5095. *Q.* You read the letter which has been written by Mr. Hebbard? *A.* Yes, I have.
5096. *Q.* He says, "You will therefore see that with the pillar and stope system in vogue and the close system of mullock filling adopted";—is it true from your investigation that the pillar and stope system was in vogue? *A.* I could not see it.
5097. *Q.* Did you see the pillars there? *A.* Yes; I saw one near the shaft. I was fairly astonished at what I did see.
5098. *Q.* You heard the evidence of Mr. Hebbard that the pillar and stope had been mined at the same time;—you have heard him state that between the 800-foot level and the 500-foot level there is no pillar at all; can you understand a statement of that kind? *A.* No.
5099. *Q.* Then he says, "The facts of the case being as I have stated, we have on one side of the boundary line a series of very incompletely filled stopes which have suffered movement at four distinct periods without counting the original creep at surface—and on the other side a series of stopes protected by solid pillars and completely filled with mullock." In the face of what you have seen in the Central what do you say to that? *A.* As regards the reference to the South mine it is untrue, and as regards the Central—I am not going to say it is not true.
5100. *Q.* Then he says, "My theory, which you will observe is based on facts as enumerated, is that the present creep was caused by a fall in some of the old creeps in the South Mine;—the cavity in our mine could not have been caused by any other means than by the running of the mullock into some open space, and it is not accounted for by the possibility of any shrinkage in our own workings"? *A.* That cannot have any value, because he said he knew nothing about it underground at the time.
5101. *Q.* Can you suggest any scheme that would be practicable as to the working on the boundaries—some scheme that would work without being a hardship on a small mine, and give an advantage to the big one? *A.* I like very much Mr. Courtney's suggestion that we should join up on the stopes above.
5102. *Q.* It must be by mutual agreement by adjoining lessees? *A.* Yes; that we should be compelled to leave bodies of ore—that would work ruin on small mines. If the law compelled me to leave the ore it would mean ruin. It is all right for the big ones, but not for the small ones.
5103. *Q.* If you cannot leave pillars, what could you suggest? *A.* I say timber and fill-up, and let him go his own way under proper supervision, as it is now.
5104. *Q.* The mining inspectors say they do not want to be the managers of the mines? *A.* Certainly; if we have much more legislation it will amount to that.
5105. *Q.* The suggestion to deal with this present creep would be to leave a floor or full level; what have you to say to that? *A.* I think it would aggravate it, and would give you a heavy weight. That would only aggravate the position.
5106. *Q.* You have had one or two movements in the South Mine? *A.* Yes; in 1901 there was a small fall of earth. The men were timbering at the time the accident happened; we were actually trying to take it up.
5107. *Q.* Having been through the stopes on the boundary, can you say if they were left in a sound condition as to mullock and timber? *A.* Yes.
5108. *Q.* Quite sufficient to bear the burden put upon them in your mine? *A.* Yes.
5109. *Q.* You have read the report of the mining inspectors as to the cause of this fall;—do you agree with them in their idea that it was a continuation of the old creep of some years ago, which may have probably left cavities above the 400-foot level on the boundary? *A.* I would rather not say I approve or otherwise.
5110. *Mr. Hall.] Q.* Referring to this arrangement between Mr. Greenway and Mr. Courtney in 1897, were you speaking from memory as to what took place then? *A.* Yes, to a certain extent.
5111. *Q.* Have you found any record in your letter-books of it? *A.* Yes.
5112. *Q.* I understand you do not profess to have any practical knowledge of mining;—did you ever manage a mine? *A.* No, not in the acceptance of the term "managing." I do not consider myself a mining expert.
5113. *Q.* You rely upon Mr. Mayne for the management of the underground portion of the South Mine? *A.* Yes; Mr. Mayne is a reliable and responsible person, and I have every confidence in him.
5114. *Q.* Is it not a fact that until recently there was a great deficiency in the filling of mullock in comparison to the amount of ore extracted from your mine? *A.* No.
5115. *Q.* Do you know the quantity of filling required per ton? *A.* I think I should like to put in 75 per cent., and that would allow 25 per cent. from the drives and cross cuts and open stopes.

5116. *Q.* Has that percentage, or anything near it, been put into the South Mine for the past six years? *A.* Something near it; you must take in the circumstances.
5117. *Q.* I believe this stope between the 600-foot and 700-foot level was taken out thirteen sets before mullock was put in? *A.* It was taken out a good deal. That is why we made the arrangement with Mr. Courtney, who could get at it before we could.
5118. *Q.* With regard to the previous collapse, has any exploration been made? *A.* Yes; we have been doing that.
5119. *Q.* There is no doubt that your ore was stripped from the boundary before the Central were working in their boundary? *A.* No doubt whatever.
5120. *Q.* Do you consider that a proper or safe method to adopt in working a mine? *A.* If you do it properly, certainly.
5121. *Q.* Do you not think it would be more beneficial that both should work it at the same time? *A.* If circumstances permitted. I do not approve of waiting for years for your neighbour to serve his own time to do it.
5122. *Q.* You have heard evidence of the creep of June last;—have any drives been put in the South mine for the purpose of exploring to discover the extent of it in the South Mine? *A.* No; we do not know that it happened. It is supposition, and I am not going to spend thousands of pounds looking for a supposition.
5123. *Q.* You have not been in the stopes on the Central boundary at the 400-foot level since June, 1901? *A.* I have been at the boundary at the 800-foot level, but no other.
5124. *Mr. Slee.* *Q.* You have a manager in the South Mine (Mr. Mayne) in whom the Company have confidence? *A.* Yes, every confidence. I would not change him for any two.
5125. *Commissioner.* *Q.* The only movements you have had have been on the boundary? *A.* That is all we know of.
5126. *Q.* On the question of the boundaries, I think you say you do not think any fixed method should be adopted? *A.* No.
5127. *Q.* It must be bound by the circumstances? *A.* I do not think we could do better than we are doing. I quite agree with what Mr. Courtney says. We should come up and connect with the stope above.
5128. *Q.* Do you not think the adjoining mine should have something to say as to how the boundary shall be worked—under the supervision of the Government? *A.* We are now. The inspectors have given evidence that we do everything they require—we try to.
5129. *Q.* The inspectors have limited powers;—the boundary-line belongs to both parties, and they should say how it is to be worked? *A.* You could not say we are to wait.
5130. *Q.* You are working at a lower depth than your neighbour;—should not your neighbour be able to oversee your work? *A.* We have always assumed that the Central and we were on good terms, and you can see that if I had twenty five years' ore in sight I would be willing to leave the boundary.
5131. *Q.* Put it the other way, that the neighbours will not agree as to the method of work? *A.* I say if you pass an Act to compel us to leave our boundary ore, it will be the crippling of the small fry. At the time I was speaking of, the South Mine would have had to shut down if we could not have worked our boundary ore.

[Witness left.]

This being all the evidence forthcoming, the Commissioner asked all parties if it were their wish that any further witnesses should be called, and, receiving an intimation in the negative, the taking of evidence was declared concluded.

APPENDICES.

[Exhibit No. 9.]

1902.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

CREEP IN THE CENTRAL MINE, BROKEN HILL.

(REPORT BY THE CHIEF INSPECTOR OF MINES RESPECTING THE)

*Printed under No. 27 Report from the Printing Committee, 18 December, 1902.**[Laid upon the Table of the Honorable the Legislative Assembly of New South Wales, by the Secretary for Mines and Agriculture, in connection with a Question asked in Parliament on the 19th November, 1902, by Mr. Williams, M.P.]*

The Chief Inspector of Mines to the Under Secretary for Mines and Agriculture.

Chief Inspector of Mines Branch, Department of Mines and Agriculture,

Sir,

Sydney, 15 December, 1902.

I have the honor to inform you that, in accordance with the instructions of the Honorable the Minister, I proceeded to Broken Hill, for the purpose of inquiring and gleaning information as to the probable cause of the creep which occurred in the Central mine, by which two persons, namely, Thomas Jordan and Leopold Campbell, lost their lives, and whose bodies have not as yet been recovered, or any matter in connection therewith.

Probable cause of the Creep.

My inspections, both of the Central and South Mines, were made in company with the local inspectors of mines (Messrs. Milne and Godfrey), and the respective under-managers of the mines mentioned, and, after the inspections, the managers of the mines, as well as the inspectors of mines, were requested by me to give their individual opinions as to the probable cause of the creep. This they did, and their reports or opinions are attached hereto.

I also wrote to the Secretary of the Barrier Branch of the Amalgamated Miners' Association, informing him that I had learned that the managers of the Central and South Mines allowed four of the Association's officials to go below and inspect the creep in both mines, and that I should be glad to confer with them on the matter, or receive their opinion in writing. I told him I would be ready on either Friday, Saturday, Sunday, Monday, or Tuesday to meet them, whichever day suited them best. My letter was written on the 21st November, but I received no reply from Mr. Wise, Secretary of the Association, until Wednesday, 26th idem (the day of my departure for Sydney), when he stated that, in the opinion of his Association, it is advisable to have a properly-constituted judicial inquiry immediately, and further, that the deputation who inspected the scene of the disaster would be prepared to give evidence on any inquiry properly formed.

Mr. Hebbard, manager of the Central Mine, and Mr. Mayne, manager of the South Mine, gave me their conjectures as to how the creep might have occurred, in writing, and they are attached hereto.

I also obtained a written opinion from the two local inspectors of mines, Messrs. D. Milne and J. R. Godfrey.

Looking through the reports it will be seen that, although written from different points of view, they one and all point to the probability of an old creep in the Central or South mine being the cause of the recent disaster, and the local inspectors of mines add that they feel certain the creep has nothing to do with any mining operations carried out during the last two years. In my opinion, no human being is capable of positively stating how and where the first movement in the last creep took place. Probably it originated in one of the old creeps which occurred about eleven years ago in the shallow levels under 400 feet in depth, in the South mine, near the boundary of the Central. A creep also occurred near the Central boundary in the South mine, at the 425-foot level, in 1895, and other creeps occurred later; hence it is probable that the whole of these creeps of former years were in a great measure the cause of the recent one. The crush took place without any warning, which strengthens my conjecture that the fall took place from one of the shallow creeps into the depleted, unfilled stopes, crushing everything before it, until it reached the resistance of the thoroughly filled-in stopes.

In the earlier days of mining operations at Broken Hill, the managers principally relied on the square-set timbering without any filling in of the depleted stopes. This system of securing the ground was carried on for some time, but as soon as its weak points were ascertained, the local inspector of mines was instructed by me to urge on managers the necessity of filling in the depleted stopes with mullock in addition to timbering. To this the managers at once agreed, and filling, as well as timbering, became the order of the day, and this course has been adhered to up to the present. Hence, as stated above, whatever creeps have taken place lately must be credited to the earlier history of the Broken Hill mines, when, on account of crude knowledge in connection with the ore bodies, the resistance and strength of square-set timbering and other matters, the practical filling-in of stopes with mullock was not in vogue.

A circular letter was sent by me to all the managers of the Broken Hill mines on 15th June, 1897 (*see Appendix "E"*), in which their attention was drawn to the creeps, and they were requested to do all that in their power lie to minimise the danger to life and limb resulting from them, as the managers are well aware of the fact that an accident in a mine, independent of the injury sustained by the unfortunate victim, always leaves behind a feeling of regret and anxiety, as well as a pecuniary loss to the company whether the accident were preventable or not. To this circular I received satisfactory replies, and am certain that the purport of it is being carried out to the present day with good results.

Search for recovery of bodies—how carried out.

In regard to the recovery of the bodies of Thomas Jordan and Leopold Campbell, who lost their lives in the recent creep, everything possible is being done by the Manager of the Central Mine, irrespective of cost, with due regard to the safety of the men who have undertaken very dangerous work, practically risking their very existence, for the purpose of recovering the bodies. It is thought they may probably be found in the chute between the 400 and 500-foot levels. The first attempt was about the 500-foot level, but proved too dangerous. At present twelve men, in three shifts of four each, are employed. They are re-sinking a mullock pass from the 400-foot level, and in sinking this pass to a depth of 30 feet, plat-sheets, rails, light wires and air pipes belonging to the 400-foot level main crosscut were met with. If the position of the point at which the buried men were supposed to be has shifted in the same ratio, 32 feet will still have to be sunk to reach the position of the slide at which it is presumed the men were at the time of the collapse. The manager, Mr. James Hebbard, informed me that he should continue to sink the pass, and further on, when possible, take other exploratory measures, but he intimated to me that the work was risky. As I had seen the men engaged in the work, personally questioned them, and been informed by them that they did not mind the risk, Mr. Hebbard was perfectly agreeable that the work should continue until further search is hopeless, or the bodies are recovered.

I may here state that I interviewed the men who volunteered to undertake the risky work of searching for the bodies, and was informed by them that they had not volunteered on account of the increased pay, but they were anxious that the bodies might be recovered. I may add that every possible precaution is taken to protect these men in their work against the occurrence of accidents.

Mrs. Jordan and Mrs. Campbell, mothers of the two unfortunate young fellows who lost their lives, paid me separate visits. They certainly deserve all possible sympathy, practical and otherwise, in having lost their principal breadwinners. They informed me they heard all kinds of rumours in connection with the accident and the search for the bodies. I told them both I did not consider the bearers of unauthentic reports to be friends of theirs, and if they came again to send them to me, as I would guarantee that the manager of the Central mine would employ them, his sole object being to recover the bodies; hence any sound advice from those who think they know where to find the bodies would be thankfully received and highly appreciated.

Judicial

Judicial Inquiry premature.

I have no hesitation in saying that a judicial inquiry at the present juncture would be premature, as no satisfactory conclusion could be arrived at, and I would strongly recommend, in the interest of the general public and in justice to all parties concerned, that such inquiry be not held until at least the bodies are recovered (when a Coroner's Inquiry will be held), or until further search for the bodies of Thomas Jordan and Leopold Campbell is, after most careful consideration, deemed useless. To hold a judicial inquiry now would only prove a waste of valuable time and public money which the result would not justify.

In reply to questions asked, I may state that the Mines Inspection Act, 1901, gives ample power to inspectors of mines to compel managers to secure the boundaries of their respective mines.

Attached hereto are the following appendices:—Appendix "A"—The Hon. the Minister's instructions to me. "B"—Report of the Inspectors of Mines, Broken Hill. "C"—Report of the Manager of Central Mine (Mr. James Hebbard). "D"—Report of the Manager, South Mine (Mr. Samuel Mayne). "E"—Circular *re* Creeps sent by me to the Mine Managers, Broken Hill, on 15th June, 1897. "F"—Correspondence of Barrier Branch, Amalgamated Miners' Association.

I have, &c.,
W. H. J. SLEE,
Chief Inspector of Mines.

APPENDIX A.

SUGGESTED INQUIRY *re* VICTIMS OF CENTRAL CRUSH.

(Jordan and Campbell.)

4 November, 1902.

Re the request made by the Secretary of the Barrier Amalgamated Miners' Association to have a full inquiry held as to the cause of the accident on the Central Mine, Broken Hill, I beg to submit that to hold an inquiry at the present juncture appears to be premature, and would probably interfere with the due course of justice to parties concerned. A Coroner's Inquiry is sure to be held sooner or later, and in the meantime everything possible is being done by the management and the local inspectors of mines for the discovery of the two bodies.

W. H. J. SLEE.

I concur with Mr. Slee's view. For approval.—E.F.P., 4/11/1902. Approved.—J.K., 5/11/1902.

Inform Mr. Cann, M.P., Chairman of Committees, per instructions of the Minister.—W. H. J. SLEE, 5/11/1902.
J. H. Cann, M.P., 5/11/1902.

I shall be glad if Mr. Slee visits Broken Hill as early as possible, and furnish a report.—J.K., 12/11/1902. The Chief Inspector of Mines.—E.F.P., 12/11/1902.

QUESTIONS ASKED IN PARLIAMENT RESPECTING THE CREEP IN CENTRAL MINE, BROKEN HILL.

Legislative Assembly, 19 November, 1902.

Question answered.

Question.

12. Creep in the Central Mine, Broken Hill:—Mr. Williams asked the Secretary for Mines,—

- (1.) Does he intend to have an inquiry made as to the cause of the creep at the Central Mine, Broken Hill, with a view to prevent, as far as possible, such occurrences in future?
- (2.) If so, what character will the proposed inquiry take?
- (3.) When does he intend such inquiry to commence?
- (4.) Is he awaiting the action of the Coroner?
- (5.) Will he at the same time ascertain the necessity of obtaining greater powers to compel adjoining mines to conjointly secure their mines on their several boundaries?

Answer.

Mr. O'SULLIVAN answered,—Consideration will be given to these matters when a report has been received from the Chief Inspector of Mines, who is now on his way to Broken Hill.

Mr. Stee.—H.B.S. for U.S., 20/11/1902. Seen.—W. H. J. SLEE, 1/12/1902.

APPENDIX B.

The Chief Inspector of Mines, Department of Mines, Sydney.

Sir,

Broken Hill, 25 November, 1902.

We have the honor to inform you that in our opinion the late creep on the boundary of the Central and South Mines is a continuation of the old creep of some years ago, which may have and probably did leave cavities above the 400-foot level; and, as these old stopes have long since been inaccessible, these cavities, as far as we know, have never been located or filled up with mullock, and it is, at any rate, reasonable to suppose that a heavy fall may have come away from the back of one of these cavities, crushing down the timber, and bursting away padocking laths and allowing the mullock filling to run and drag the other stopes.

The suddenness with which the collapse occurred is a strong argument in favour of a fall from an old cavity above. It is impossible to say where the first movement took place; but we know that the Central Mine has moved for a distance of about 250 feet north from the boundary at the 400-foot and 500 foot levels, whereas the South Mine has not been affected at any point for a greater distance than 75 feet at the 600-foot level, except on the surface near the subsidence.

At the 500-foot level the stopes are practically the same as it was before the fall.

The 800-foot level worked up on the boundary to within about two sets of the 700-foot level, and at this point is affected for about four sets square.

Whether the old inaccessible stopes in the vicinity of the creep in the South Mine of some years ago caused the collapse, or some old stopes in the upper levels of the Central, one cannot say for certain, but we can say for certain that this disastrous collapse has not been caused by any work done in either mines during the last two years.

(Signed by Messrs. Milne and Godfrey.)

APPENDIX C.

W. H. J. Slee, Esq., Chief Inspector of Mines, &c., Sydney.

The Sulphide Corporation (Limited), Central Mine,

Sir,

Broken Hill, New South Wales, 24 November, 1902.

In response to your verbal request of 21st instant, I have now the honor to submit the following remarks regarding the recent creep in the mine, together with the conclusions arrived at by myself and officers concerning its cause.

I may say at the outset that in consequence of the system obtaining in this mine, of pillar and stope alternately, and the thorough and complete way in which mullock-filling followed the mining operation, together with the knowledge possessed of the collapsed region and the unlimited confidence in its security, as is evidenced by the fact that the magazines, tool-exchange stations, machine-fitting shop, and travelling-way between levels were in this region, that we could not, at the time of the creep, or even after considerable knowledge of its extent has been gained, find any reason for the collapse in the internal economy of the mine.

It might be well for the sake of clearness to summarise the various workings that formerly occupied the area included in the collapsed region.

Beginning

Beginning at the South Mine boundary on 600-foot level, A5 and A4 stopes have been worked where ore existed through to 500-foot level. A3 is an unworked pillar, except for the three sets wide on sill floor, which constitute a gangway. A2 has been partially worked, but continued through to 500-foot level, inclining north through the A1 pillar. The working has, however, been continuous on the footwall, which shows as a separate stope.

At 500-foot level from South Mine boundary A5 and portion of A4 is intact, as the space is occupied by intrusive rock. A3 has been worked to a width of eight sets from footwall, the western portion remaining as pillar. A2 has been worked only partially about three sets wide and to a height of eight or nine floors, the remainder standing as pillar supporting Kintore shaft. The workings from this level also are continuous on footwall where payable ore existed.

On 400-foot level the workings were almost continuous on footwall side of lode, but only to a height of three to five floors.

On the western side of the large intrusion the ore body had been worked on a gradual rise to the northward, beginning at South mine boundary and ending at main crosscut, where the stope above the 400-foot level was five sets in height. This height was the limit of the ore body, and the back then left standing is intact to-day, as you have seen.

On boundaries of sections, stopes, and South Mine, paddocking-laths were invariably used to prevent the mullock filling from breaking away.

You will, therefore, see that with the pillar and stope system in vogue, and the close system of mullock filling adopted, a creep of the extensive nature of the one under notice was practically impossible, and that every provision that human foresight could suggest was adopted with a view to the safe administration of the mine.

Causes of the Creep.

Under this head it is indispensable that I should go back some years and review the workings of the South Mine, our neighbour to the southward, as my theory of the cause or causes of the creep is inseparably connected with the old creeps in that mine, adjacent to the boundary of this mine.

While free to admit that these old creeps were the result of a system of mining that was then held good and the best under the circumstances, viz., timbering without filling, I submit that the cavities resulting from the creeps have been considered a menace to the surroundings and to the workings of this mine in particular, and that the management of this mine was fully alive to the danger can be proved by the production of correspondence on the question, if necessary.

To recapitulate, about eleven years ago a creep occurred in the shallow levels somewhere above 300-foot level that involved the boundary workings of both Central and South Mines, and which eventually showed itself on surface by a cavity about 40 feet across, nearly the whole of it, however, being within the South mine limits.

Subsequently, when mullock filling of depleted stopes became the vogue, the South Mine opened a quarry some distance to the southward of the creep, the broken mullock being sent down through an old shaft (which had been converted into a mullock pass) to one of the levels. In this connection it is admitted that more mullock was taken from the pass than was put in at the surface, thereby enlarging the cavity, but to what extent I am not prepared to say, as I do not know definitely how much the mullock taken out of pass was in excess of what was put in at surface, but that the existing cavity was enlarged is indubitable.

In 1895 a creep occurred above the 425-foot level of the South Mine, which was unfortunately attended with fatal results, and later on, I think in 1897 or 1898, a movement of the footwall in the stopes above the 600-foot level.

In the subsequent working of this stope last year for the removal of the broken ore and the securing of the ground, a further slip took place, and in consequence the stope was temporarily abandoned and has not since been operated. The stope at this mine had reached to about 500-foot level.

On 4th June of this year I received a report that a fall had occurred in the region of our south shaft, which is 80 feet from the South Mine boundary. The depth of this shaft was 400 feet, and a stope on foot-wall from 500-foot level reached within three sets of the bottom of shaft or 400-foot level. This stope had been systematically filled, and on its completion the mullock pass that fed it was left full also.

On investigation, it was found that a cavity existed immediately under the bottom of this shaft, the solid ground over which was like a sloping roof with the inclination towards the South boundary. A reasonable conjecture from what I knew of the South mine workings, was that there had been a further fall from the back of the stope above 500-foot level last referred to.

In company with Mr. Mayne (underground manager of South Mine) and Mr. Dawe (underground manager of this mine), I visited the 500-foot level of the South Mine next day and proved that my conjecture was correct, the stope having again collapsed and to such an extent that it could not be entered from the level cross-cut. The collapse had evidently broken the timbers on our boundary, allowing the mullock filling to run out, causing a creep in conformity with the shape of the ore body and stope which had followed the shape and contour of the ore body. To further prove the connection between the collapse of the South Mine at 500-foot level stope and the cavity under our 400-foot level, a winze was sunk midway between the cavity and south boundary, which entered the cavity at 42 feet. This cavity, as well as that under the shaft, was promptly filled at considerable expense, and while the work was in progress a small drive was put in through our boundary pillar to afford a ready means of egress should a further movement take place. This work was undertaken at the suggestion of the Government inspector. The whole of this work was undertaken with a view to the future security of the mine, and to prevent the creep extending further northwards.

To my knowledge, nothing in the way of investigation of the extent or position of the series of creeps in the South Mine has ever been undertaken, there being so little ground or ore between them that a heavy fall in either of them would break the separating ground, and make them one, as has evidently happened, seeing that in the South Mine a movement can be traced from surface down to 700-foot level.

The facts of the case being as I have stated, we have on one side of the boundary line a series of very incompletely-filled stopes which have suffered movement at four distinct periods without counting the original creep at surface (the lack of filling is proclaimed by the official reports and is well known to your officers), and on the other side a series of stopes protected by solid pillars and completely filled with mullock.

The plans and sections furnished to Messrs. Milne and Godfrey show that the workings of the two mines join on the boundary, and this series of creeps being adjacent to the boundary, I contend that a fall in any of them would be likely to cause a break in the boundary timbers and allow the mullock filling to run out of our stopes into the cavities.

It has been argued that a creep tends to fill itself, but the cavity at the back of our 400-foot level, as the result of the recent movement, is a convincing proof of the falsity of the argument; and the theory that a cavity fills itself remains a theory as far as Broken Hill mine workings are concerned, and therefore the presumption is that cavities existed as the result of the creep under notice.

Observation during the whole time since the creep occurred shows that the whole of the movement is in a slanting direction to the south.

My theory, which you will observe is based on facts as enumerated, is that the present creep was caused by a fall in some of the old creeps of the South Mine. The cavity in our mine could not have been caused by any other means than by the running of the mullock into some open space, and it is not accounted for by the possibility of any shrinkage in our own workings.

I am rather inclined to think that the movement had its commencement in a fall from the old cavity near the surface which had been enlarged as before mentioned, and that the fall broke through the ground or ore separating the other creeps and so demolished the boundary timbers. Evidences of a very extensive surface movement in the South Mine are easily traceable in the cracks that extend to a distance of 250 feet south from the Central boundary, and in their mullock tunnel at about the same point, but about 50 feet below the surface, which has been considerably damaged by the movement.

As bearing somewhat on the subject, I may say that there had for some years been an uneasy feeling on the part of the management of this mine as to the security of the boundary, and a verbal arrangement was made between Mr. Courtney and Mr. Greenway (then the South Company's consulting manager) whereby a strip of ground was to be left by each mine on the boundary for security against creeps or fire. As Inspector of Mines, in August, 1897, I wrote you enclosing a letter I had received from Mr. Courtney complaining that the South people were not abiding by the agreement to secure the boundary, and which pointed out that such a disregard of so necessary a precaution could only be characterised as reckless. Personally, I did all I could as an inspector to help Mr. Courtney in keeping the South Mine to their engagement *re* the boundary; but notwithstanding this the South boundary was stripped of its ore and the Central pillar of about 25 feet left standing.

I would like to direct your attention to the correspondence in *re* this matter, which is in the books of the local inspector's office.

To

To further show that there was some considerable anxiety on the part of this mine's officials as to the state of the South Mine's boundary workings, I may say that shortly after becoming connected with this corporation I suggested the advisability of offering to fill up a section of the South Mine workings on our boundary, which offer was accepted after a little pressure had been brought to bear, and the work commenced. The section proposed to be filled would have taken about 8,000 cubic yards to fill it, but we were ordered to stop when about 1,200 yards had been put in.

The certainty that in the event of a further creep in the South Mine the boundary pillars would run into the old cavities caused their removal between 500-foot and 600-foot levels while it was still possible, there being no particular object to serve seeing that South Mine had disregarded an agreement that was so obviously for the benefit of both parties.

The foregoing statement of the case, based on facts, should be sufficient and clear enough to prove that nothing in the internal working of this mine is in any way responsible for the creep, or that anything in the way of precautions that the exercise of forethought dictated by the experience of ourselves or the underground officers were not taken.

The system of pillars in vogue in this mine in a great measure prevented the movement from being more wide-spreading in its effects than it would otherwise have been, and there is no doubt but that the pillars immediately to the north of the main cross-cut on the various levels prevented the movement spreading in that direction.

I would also like to say that so closely were the whole of our depleted stopes packed with mullock that the cavity showing above our 400-foot level can only be accounted for in one way, and that is on the supposition that our mullock had run into the South Mine. Into this cavity we have already put mullock and timber to the extent of over 6,000 cubic yards besides about 2,000 cubic feet of timber.

I have no desire to throw personal blame on the officers of the South Mine, because I know that in the matter of the notorious incompleteness of the filling of the mine they are more or less the victims of circumstances, but I do maintain that the facts of the case show that the recent creep is the direct result of the old creeps in the South Mine which have never been investigated or filled, and that the management of this mine is in no way responsible for it.

I have, &c.,

JAMES HEBBARD,
Manager.

APPENDIX D.

Effects of Recent Creep of 8th October, 1902, on the South Mine.

W. H. J. Slee, Esq., Chief Inspector of Mines, Broken Hill,—

The Broken Hill South Silver-mining Company (No-Liability),

Broken Hill, 26 November, 1902.

Dear Sir,

In compliance with your wishes I now hand you the following report:—

I have made periodical inspections of this Company's underground workings on the 8th October and on subsequent dates.

On the surface a large depression extending from within the Central boundary to a distance of 145 feet in the South is visible. This embraces the old Central and South creep, evidence of which was previously visible at the surface.

Mullock tunnel.—At 57 feet from Piper's shaft going north-west the subsidence had affected the ground for a length of 120 feet. No settlement was visible, but slight cracks were to be seen traversing the wall and back from a north-easterly direction. As a precautionary measure several sets of timber were put in, and mullocking operations were resumed through this tunnel.

250-foot level.—On going through the cross-cut to the foot-wall, and thence in a north-easterly direction as far as possible towards Piper's shaft, no signs of settlement were visible.

425-foot level.—No new settlement was visible at this level.

525-foot level.—Neither was there any indication of recent movement here.

625-foot level.—At a distance of 30 feet from the Central boundary the drive had collapsed, and general signs of heavy pressure from a northerly direction were evident.

725-foot level.—At a distance of 50 feet from the Central boundary on the foot-wall side and diagonally to a point 20 feet distant from the boundary on the hanging-wall side this stope had collapsed, and also showed signs of heavy pressure.

825-foot level.—Within three and a half floors of the 725-foot level an area approximately 20 feet x 15 feet, at about 25 feet from the Central boundary, shows the effects of heavy superincumbent weight, several sets of timber having been crushed. No disturbance is visible below this point.

Mullock pass.—This pass, which is sunk at a distance of 110 feet from the Central boundary, on the hanging-wall side, to the 800-foot level, is unaffected by the movement in question, and is in regular operation.

At the 825, 725, and 625 feet levels the general appearance of the drives and stopes show no indication, so far as I am able to judge, of a local collapse having been the cause of any movements in the upper levels.

I am, &c.,

S. MAYNE,
Underground Manager.

P.S.—Two plans explanatory of the accompanying report are enclosed.

APPENDIX E.

Chief Inspector of Mines and Diamond Drill Branch,

Department of Mines and Agriculture, Sydney, 15 June, 1897.

Sir,

I do myself the honor to draw your attention to creeps which have occurred, and are likely to occur again, in connection with the extensive underground workings of the Broken Hill mines.

In view of that fact, I beg to solicit your co-operation by requesting you to keep open, as far as practicable, as many levels or stopes, not only in your own mines, but also connections with yours and the adjoining mines, thereby minimising the danger of creeps to life and limb, by not only allowing the compressed air generated by the sudden collapse of stopes to escape more freely, but also to give extra opportunity of escape to persons employed in the mine when such creeps take place.

Every mine should be provided with more than one outlet whenever and wherever practicable. Had such an opening not existed between the Junction North Mine and the Junction Mine a great mining calamity may have had to be recorded. Some of the miners employed would certainly have lost their lives had there been no escape from the Junction North to the Junction Mine.

Feeling sure that you will assist me as far as possible to prevent accidents, you being well aware of the fact that accidents in mines, independent of the injury sustained by unfortunate individuals, leaves always behind a feeling of regret and anxiety to the manager as well as a pecuniary loss to the Company, whether such accidents were preventable or not.

I have, &c.,

W. H. J. SLEE,
Chief Inspector of Mines.

APPENDIX F.

W. J. Wise, Esq., J.P., Secretary, Amalgamated Miners' Association, Broken Hill.

Dear Sir,

"Freemasons' Hotel," Broken Hill, 21 November, 1902.

On my visit to the Central Mine this morning, I learned that you and other miners as a deputation or party had inspected the Central Mine with a view of being able to form some conclusion re the recent creep in the Central Mine, by which two persons named Jordan and Campbell lost their lives.

I should be very glad to obtain your opinion in writing on the matter, either individually or collectively, and should be pleased if you could pay me a visit at my hotel either to-morrow (Saturday) or Sunday, Monday, or Tuesday next, but no later, whichever suits you best. Kindly acknowledge this.

Yours, &c.,

W. H. J. SLEE,
Chief Inspector of Mines.

Barrier Branch Amalgamated Miners' Association,

Trades Hall, Broken Hill, 26 November, 1902.

W. H. J. Slee, Esq., Chief Inspector of Mines, Broken Hill,—

Dear Sir,

In reply to yours, 21st instant, re the fatality to Jordan and Campbell in the Central Mine, I have the honor, by instruction from the above, to state that in the opinion of this Society it is advisable to have a properly-constituted judicial inquiry immediately, and further that the deputation who inspected the scene of the disaster will be prepared to give evidence on an inquiry properly formed.

I remain, &c.,

W. J. WISE,
Secretary.

Barrier Branch, Amalgamated Miners' Association,

Trades Hall, Broken Hill, 27 October, 1902.

Mr. J. H. Cann, M.L.A., Parliament House, Sydney,—

Dear Sir,

Re Jordan and Campbell, the victims of the Central Crush.

I am directed by the above to request you to urge upon the Honorable the Minister for Mines to have a full inquiry as to the cause of the accident, for the following reason, viz. :—That in all probability it may take months to recover the bodies, and if the inquiry is delayed until then, most, if not all, of witnesses will have left Broken Hill.

I am further directed to ask you to urge on the Minister to allow an official of the Amalgamated Miners' Association to appear at the inquiry on behalf of the deceased relatives, and further that President T. C. Roberts, Vice-President Charles Richards, Treasurer A. M. Dale, and Secretary W. J. Wise be subpoenaed to attend and give evidence on the inquiry.

Yours, &c.,

W. J. WISE,
Secretary.

Presented by J. H. Cann, 30/10/1902.

[Exhibit No. 11.]

FATAL and Serious Accidents in the Metalliferous Mines of New South Wales for the last twelve years from 1891 to 1902, inclusive.

Year.	FATAL.												SERIOUS.												NUMBER OF MEN EMPLOYED.								
	Cause of Accident.											Totals.	Cause of Accident.											Totals.									
	Explosions.	Falls of ground.	Suffocations.	Falls.	Shaft Accidents.	Miscellaneous.	Totals.	Explosion.	Falls of ground.	Suffocations.	Falls.		Shaft Accidents.	Miscellaneous.	Totals.	Broken Hill.	Other parts of N.S.W.	Total.															
	Broken Hill.	Other parts of N.S.W.	Broken Hill.	Other parts of N.S.W.	Broken Hill.	Other parts of N.S.W.		Broken Hill.	Other parts of N.S.W.	Broken Hill.	Other parts of N.S.W.	Broken Hill.	Other parts of N.S.W.	Broken Hill.					Other parts of N.S.W.	Broken Hill.	Other parts of N.S.W.												
1891	1	..	4	4	..	..	3	1	6	1	14	6	20	4	8	4	7	..	..	..	..	3	3	3	..	14	18	32	6,932	14,496	21,428
1892	4	1	1	6	..	..	1	1	1	4	6	12	18	6	7	1	4	..	..	..	..	2	4	4	11	17	28	5,226	12,106	17,332	
1893	..	3	1	8	..	..	..	1	2	3	1	5	14	10	3	1	3	2	..	..	..	..	..	12	3	18	6	24	4,300	15,409	19,709
1894	3	3	4	9	..	1	1	3	2	2	10	18	28	3	2	6	5	..	..	..	..	2	9	..	18	9	27	4,240	15,818	20,058	
1895	4	1	11	9	..	1	1	1	4	4	20	16	36	2	3	5	5	..	..	..	..	..	..	10	3	17	11	28	4,943	23,989	28,933
1896	2	4	3	9	..	1	..	3	7	4	12	23	35	2	5	7	5	..	1	..	..	..	3	10	3	19	17	33	5,400	25,078	30,478
1897	..	5	4	8	3	..	..	1	2	6	6	14	21	35	1	7	4	7	..	..	..	2	16	1	23	17	40	5,950	25,279	31,229	
1898	1	1	14	7	..	..	..	5	4	3	19	16	55	..	2	4	2	..	..	..	..	4	12	3	16	11	27	6,011	24,300	30,311	
1899	..	3	10	9	..	2	..	2	3	2	8	14	25	39	2	4	7	13	..	..	..	3	2	20	7	31	26	57	7,219	25,048	32,267
1900	..	3	9	8	..	1	..	1	..	12	4	26	16	42	4	2	21	17	..	..	..	3	7	28	8	53	34	90	7,405	24,849	32,254
1901	..	3	10	6	2	2	..	3	10	2	22	16	38	3	2	18	7	..	..	2	..	1	2	27	12	51	23	74	6,989	17,211	24,200
1902	1	..	7	3	..	..	1	..	1	4	2	12	7	19	3	2	7	6	..	4	1	1	5	11	14	26	28	54	5,169	15,412	20,581
Totals..	29	27	78	86	5	8	..	1	14	29	57	30	174	190	364	33	45	87	80	..	1	6	1	12	32	162	58	300	217	517	69,814	239,016	308,830

[Exhibit No. 12.]

[Statutory Declaration.]

This is to certify that I, Charles King, working in the Central Mine under the name of Charles Goostracy, on the 400 (four hundred) level sinking a winze. I do hereby declare that the place is unsafe to work, as the break in country, and a heavy side pressure is forcing the timber down towards the South Mine and the traces of the break can be seen for 200 feet in the west drive, our only means of escape. I have also reported the matter to the Inspector of Mines.

(Signed) CHARLES F. G. KING,
alias C. GOOSTRACY.

(Sig.)
Witness to Signature of Chas. F. G. King. } WM. NULTY.

DECLARED at Broken Hill, in the State of New South Wales, this thirtieth day of June, 1902. Before me,—
W. J. WISE, J.P.

[Exhibit No. 22.]

Dear Sir,

I have the honor to attach a letter just received from Mr. C. F. Courtney, manager of the Central Mine (Sulphide Corporation, Ashcroft's Process, Limited).

In conversation with Mr. Courtney, he explained the difficulty he was labouring under. It appears that with the idea of complying with your circular of the 15th June, 1897, Mr. Courtney, of the Central Mine, and Mr. F. J. Greenway of the South Mine, had a conference, the result of which was a verbal agreement that on the 600-foot level of their mines 25 feet of ore should be allowed to stand on each boundary, thus making a solid pillar between the mines, the level being left open for ventilation and escape if necessary in case of danger.

On this understanding the Central Mine manager has laid off his work, and has not approached the boundary line within 25 feet, and provision has also been made for isolating the mine in case of fire. On the other hand the South Mine manager is carrying his stopes right up to the boundary, thus making the provision asked for in your circular a very one-sided arrangement.

I think the arrangement come to between the companies was a very admirable one—i.e., "leaving a solid pillar of ore on the boundary until the other portions of the lode were worked, thereby providing safe exits and a means of isolation in case of fire,"—and it is a pity it could not be adhered to. I would respectfully suggest that you should write the South Mine Company on the subject.

I have, &c.,
JAMES HEBBARD,
Inspector of Mines.

The Chief Inspector of Mines, Department of Mines, Sydney.

Exhibit

[Exhibit No. 23.]

[Memorandum.]

Chief Inspector of Mines and Diamond Drill Branch,
Department of Mines and Agriculture, Sydney, 31 August, 1897.

YOURS of 24th August with Mr. Courtney's letter enclosed came duly to hand. Although I fully agree with the sentiments expressed in both your and Mr. Courtney's letters, I am afraid I would be exceeding my duty were I to interfere in any way with private arrangements made between managers.

I have, &c.,

W. H. J. SLEE,
Chief Inspector of Mines.

Inspector Hebbard, Broken Hill.

[Exhibit No. 24.]

Broken Hill, 14 July, 1896.

Sir,

I have the honor to inform you that I to-day visited the Central Mine (Sulphide Corporation) Ashcroft's Process, Limited, and inspected the scene of the creep which took place on Saturday night last.

The locality of the creep is between 500-foot and 400-foot levels, and apparently extends a few floors above the latter.

You will doubtless remember an old stope situated on the extreme western side of the lode on account of its peculiar nature. I can compare it to nothing but a mass of large rocks of ore tumbled loose into a quarry. This was characteristic of the lode for about 100 feet long and 30 to 40 feet wide, and had evidently been a large vug or water-channel that had evidently collapsed at some period. The ground was always heavy in this stope, and since re-starting operations the management has kept the mullock filling as close up as was possible. The trend of the foot-wall at this place, with the character of the ore, together with the fact that a goodly quantity of water has always flowed from the foot-wall, are the causes of the creep, and I am of opinion that all that was possible in the way of timbering and mullocking had been done.

The workmen were removed from the stope at 9 a.m., and the creep did not occur until about 9 p.m. on the 11th instant. The effects of the fall were very much minimised by the great quantity of mullock in the stope.

After thoroughly examining the place at every possible point, I gave permission for the entrance of workmen for the purpose of repairing and securing only.

The fall has blocked the gangways in the western portion of the mine; but otherwise the working of the mine will not be affected.

All the other parts of the mine are in good condition. The good-effects of the thorough filling of depleted stopes is very well exemplified in this instance.

I have, &c.,

JAMES HEBBARD,
Inspector of Mines.

The Chief Inspector of Mines, Department of Mines, Sydney.

[The area of the creep is about 100 feet long, 30 feet wide, and about 100 feet high.]

[Exhibit No. 25.]

Broken Hill, 18 June, 1892.

Sir,

I have the honor to inform you that a heavy fall of ground took place on the boundary of the Broken Hill South and the Broken Hill Central companies' mines on Wednesday night last at about 6 p.m.

The fall has an extent of about 150 feet on the line of lode, and in height from the 350-foot level to above the back of the 200-foot level.

In my opinion, the fall was consequent on the rotting of the timbers about and above the 200-foot level, the ore here having been extracted over two years ago.

It is my opinion also that it has been emphatically demonstrated that the style of timbering in vogue here is inadequate to support the pressure imposed on it without the added assistance which would be rendered by the filling in of the stopes with mullock. This is being done during the last six months more generally than for any previous period; and I shall continue, with your permission, to still impress the necessity of it. It is only in some instances that special provision is made for filling in—this being particularly the case at Block 14—the other companies relying chiefly on the mullock in the lode and poor ore for filling up stopes.

I may say that in the ordinary course of visiting and inspecting I examined these stopes where the fall occurred on Wednesday afternoon, and saw what was happening, and saw also that provision was being made for the men's safety. I have since been carefully through both mines, and by my instructing all ingress to the broken portion has been stopped and barricades built up.

I have, &c.,

JAMES HEBBARD,
Inspector of Mines.

The Chief Inspector of Mines, Mines Department, Sydney.

[Exhibit No. 26.]

THE SULPHIDE CORPORATION, LIMITED, CENTRAL MINE, BROKEN HILL.

RULES and Regulations to be observed (in conjunction with the Government Mining Regulations of New South Wales) by all Underground Workmen, including Bracemen, Brace Truckers, Winding Engine Drivers, and all other men employed in or about the shafts, on the surface, or connected with the Underground Department.

1. All workmen connected with the Underground Department shall work shifts of 8 hours less 20 minutes for crib.
2. Any workman arriving late will lose one shift.
3. No workman shall be permitted to enter or remain on the Mine while in a state of intoxication or to bring intoxicating liquor on the Mine.

4. LOWERING AND HOISTING MEN, &c.—No workman shall enter a Cage under any circumstances without the permission of the Braceman or Platman, and in no case may any person ride in the Cage with or in trucks. When a Cage, resting on chairs, requires to be lowered below that level, the Engine Driver, after receiving the signal to lower, shall, before lowering, raise the Cage about three inches to allow the chairs to be withdrawn. Bracemen and Platmen and any who may be authorised from time to time to attend to this matter, are strictly forbidden to withdraw the chairs till the Cage has been raised as above stated. When both Cages are in gear, the Engine Driver shall not move either Cage before receiving signals for both of them. Shift Bosses on duty when shifts are changing shall remain at the plats underground and at surface brace until this operation is completed. No signal shall be given to the Engine Driver affecting any Cage unless such Cage is at the level from which the signal is to be given. In all cases when the Platman leaves the plat shall the chairs be securely fastened back by him before leaving. The Braceman, Platman, and Engine Driver shall pay strict attention to the signals and shall be responsible for carrying out same. No Braceman to leave the shaft, and no Platman to leave the plat when shifts are being relieved. On no account shall men get in or out of the Cage whilst in motion. No one is allowed to make alterations or interfere with the Cage without first advising the Braceman or Platman, or to lean on or over the Protection Bar of the shaft or plat.

5. All workmen are prohibited from entering any place throughout the Mine where not absolutely required by duty to be at the time.

6. Workmen shall not remove or interfere with any precaution for the safety of the Underground employees, such as coverings over, or guard rails around, shafts on surface, winzes, ore shoots, or other dangerous places, and shall keep all such places in the vicinity of their work as it proceeds, properly covered or railed off. As a matter of common safety any workman who shall observe, or come to the knowledge of, any damage to, or deficiency in, any part of the workings, any defect or flaw in the cages, chains, ropes, or chairs, or in any part of the engine, machinery, gearing, or plant used in or about the Mine whereby the safety of workmen or others may be impaired, shall be bound forthwith to communicate same to the Shift Boss or Foreman. Workmen are prohibited from tampering with any marks which may be made in any part of the workings for the guidance of the workmen or the management; or interfering without authority with any part of the machinery, gearing, or plant, in any way whatever. If in the various mining operations underground, the workmen notice any undue pressure on the timbers, or any movement or disturbance in the ground which might be in any way considered dangerous, they shall immediately convey information of such to their Shift Boss, who shall at once advise the Underground Manager or Foreman. It will be the duty of the Shift Boss whose attention has been directed to such matters, to fully explain (before he leaves the mine) to the Shift Boss who relieves him, the nature of the movement in the ground, or anything else which may require special attention, and the relieving Shift Boss having been so informed shall

notify!

notify the workmen under his charge of any danger or indication of same. If at any time a movement in the underground workings should occur which would be at all likely to cause a subsidence on the surface, it will be the duty of the Shift Boss in charge of that particular section of the Mine to immediately notify his Foreman about it, and the foreman shall, without delay, inform those in charge of the surface work. If the Shift Boss cannot quickly find his Foreman he must himself convey the information to those in charge of the surface work.

7. **BLASTING UNDERGROUND.**—No men are to bore more than twelve holes in one place, and in no case to bore in old bottoms of holes that have previously been blasted. Six holes only are to be charged and blasted at any one time. Before the fuse in a charged hole is lighted due notice must be given by the man or men in charge of the blasting by calling out in a loud voice not less than three times "FIRE," the number of holes charged, and the number of the floor on. After the fuses are lighted the men in charge of the blasting must guard the passages leading to where the blasting is being carried on, and they must prevent anyone from going dangerously near to the holes. If a hole has missed fire, the place where the missed hole is must not be approached in less than ONE HOUR AND A HALF from the time that the fuse in such missed hole was lighted; a man must be left to guard the place, and advice at once given to the Shift Boss. A charge or explosive of any kind which has missed fire shall not be unrammed, and a fresh hole shall not be drilled within an unsafe distance of the missed hole. When blasting in the square set timbering where the material to be blown out by the blast will fall upon the plank flooring of the square sets, such flooring must be protected by laying loose planks or timbers across the regular floors.

8. Shift Bosses are fully empowered to discharge or suspend workmen under their charge for neglect of work, idleness, or insubordination.

9. Any employee or any other person, or persons, found removing from the mine specimens of ore, tools, candles, or any other property belonging to the Company will be liable to criminal prosecution.

10. All sharp and blunt tools (hammers, gads, picks, &c.) used in the works are to be returned at the completion of each shift to those in charge of the tool-boxes. Planting and secreting of tools of any kind is strictly forbidden. All blunt tools shall be delivered when required during working time to those in charge of the tool-boxes at the various levels and there exchanged for the sharp tools.

11. **CHANGING ROOM.**—All clothes left on the floor of the Changing Room will, be thrown out by the Attendant. Smoking or the lighting of pipes in the Changing Room is strictly prohibited. No matches or other inflammable material to be left in the pockets of the clothes. Every care to be taken in using the taps, valves, sprays, &c. No taps or valves to be left open after using. The electric lighting arrangements are not to be tampered with, and it is requested that those last leaving the room when the light is switched on will turn it off by the switches that are fixed immediately inside the entrance door.

12. In case of accidents in the Mine, the Shift Boss on whose level the accident may occur will at once take charge of the case and make arrangements as may be advisable. Advice is to be at once sent into the General Office so that a Doctor may be called by telephone and a conveyance obtained if necessary. Should an accident occur between the hours of 10 p.m. and 8 a.m. and difficulties are experienced in obtaining connection with the Doctor by telephone, the Shift Boss or Foreman is to send one of the workmen to advise a Doctor and obtain a conveyance if it should be considered necessary. It is to be understood that during the absence of a Shift Boss from his level that the one in charge from either the level below or the one above will take charge during his absence whilst making the required arrangements for dealing with the accident. A report is to be handed in to the Underground Manager as early as possible after the accident. In case of a fatal or serious accident occurring at any time the Underground Manager is to be at once advised.

13. Pay day is on alternate Fridays, the Company retaining the time worked during pay week.

The above rules are framed for the purpose of facilitating the work in the mine and for the safety and benefit of all workmen on contract or otherwise. As it is impossible in print to provide a rule for everything, employees are required, under pain of dismissal, to strictly comply with any rules or instructions which may be made and given verbally by the management from time to time, and are further required personally and individually to exercise every care to prevent accidents to themselves or to their fellow workmen.

Broken Hill.

C. F. COURTNEY,
Manager.

[Exhibit No. 27.]

Dear Sir,
The Broken Hill South Silver-mining Co., N.-L., Melbourne, 10 May, 1897.
In reply to yours of the 3rd ultimo, I am to inform you that Mr. J. T. Greenaway, of Block 14 Company, has been appointed to confer with the manager of the Central Company with a view to the preparation of a joint report as to the best means to be adopted for the mutual protection of the "Central" and "South" Companies against the spread of fire or other injuries.

Yours, &c.,
R. FORD,
Manager.

The Secretary, Sulphide Corporation (A. P.), Limited, Melbourne.
P.S.—Mr. Greenway is Consulting Engineer to this Company.

Dear Sir,
Adelaide, 21 March, 1901.
I am instructed to confirm the arrangement entered into with you by our Managing Director, by which certain sets at the boundary of our mine and yours are to be filled by your Company on our behalf, on the understanding that we pay you £1 per set. Our underground-manager has been instructed to agree with your officers beforehand the sets which are to be filled.

J. K. SAMUEL, *pro* Secretary.

C. F. Courtney, Esq., General Manager, Sulphide Corporation, Broken Hill.

Dear Sir,
The Sulphide Corporation, Limited, Broken Hill, 22 March, 1901.
I am in receipt of yours of the 2nd instant, confirming arrangements made with your Managing Director. Our surveyor, during next week, will therefore note, with your officers, the general disposition of the sets, so that when filling is completed they will be able to ascertain between them the number filled.

Yours, &c.,
C. F. COURTNEY,
Manager.

J. K. Samuel, Esq., Secretary, South S.M. Company, Adelaide.

EXCERPT from the Managing Director's Report of 11 March, 1901.

"I HAD an interview with Mr. Courtney, and arranged for a few of our sets at the boundary to be filled by him. I induced him to reduce his price to £1 per set. This will be only a small outlay, probably £100 at the outside, and soon after it is done we shall be ready with our own mullock."

[Exhibit No. 33.]

THURSDAY, 27 JUNE, 1901.

[The Commission sat at 10 a.m., in the Council Chambers, Broken Hill.]

Present:—Charles Gregory Wade, Esq., Barrister-at-Law, Royal Commissioner; Mr. J. R. Edwards, Solicitor, representing the Company; Mr. D. Milne, Inspector of Mines.

Samuel Mayne called in, sworn, and examined:—

1. *Commissioner*] What is your name? Samuel Mayne.
2. What are you? A mine manager.
3. Where? At Broken Hill South Mine.
4. How long have you been manager? About four years.
5. Have you been at the Broken Hill South Mine all the time? I have been at the Proprietary Mine; but I have worked at the Broken Hill South Mine as manager and shift-boss for about seven years.

6. Does your work take you underground ;—is that part of your duty to supervise the underground work ? Yes.
7. What is your experience of metal-mining altogether ? Thirty years.
8. How long have you been on the Broken Hill field ? Fifteen years next September.
9. To what depth is the Broken Hill South Mine developed ? To the 500-foot level.
10. How many levels are there ;—are they at every 100 feet ? Yes, every 100 feet.
11. What is the character of the ore formation ? The upper levels are friable. The under levels are harder, fuller, and more compact.
12. At what level do they cease to be friable ? At about the 500-foot level.
13. Do you require timber in the drives of the workings above the 500-foot level ? Yes ; all close timber.
14. *Commissioner.*] Do you require timber below the 500-foot level ? Not quite so much.
15. What is the occasion for timbering below the 500-foot level ;—are there soft patches or what ? The soft patches are above the 500-foot level.
16. I think you just said you require occasional timbering below the 500-foot level ? Yes ; but not quite so much timber.
17. What is the occasion for timbering below the 500 feet ;—is it because you cut across soft patches of ground, or for what reason ? For the safety of the men in the mine and everywhere it is necessary.
18. But is the formation pretty uniform below the 500-foot level, or do you get soft patches ? There are places with soft patches.
19. Can you always detect those places ? No.
20. I understand that where you can detect them the timber protects them ? Yes.
21. Will you explain what the method is of working the stopes ? I have a plan with me which shows the working.
22. But I wish you to explain it ? We put in set timbers first and build sets on them, and where the material is very hard we shoot it and build bulks. That is the only method we have of timbering.
23. What do you call bulks ? Some persons call them pig-styes ; it is building one on top of the other. If there is any place from these timbers about which we have any doubt we run out what we call booms to cover the men over for protection.
24. How do they stand ? They are affixed to the other timber from the square sets, but very often, if anything gives way on those booms, they act as a lever, and capsize all the timber.
25. What would be the height of the roof where the timber is being set ;—I suppose you would call it from the nearest timber ? When we are carrying timber right along we carry it right along on the back. It is built right up and carried forward on the back. [*The Commissioner inspected the plan produced.*]
26. I suppose, when you are stoping, you work upwards ? Yes, we always work upwards.
27. And you have the roof over your head whilst working the stopes ? Yes.
28. Do you say if there is any loose stuff you timber ? We timber everywhere where it is necessary.
29. But if the stuff is solid, do you do without timbering ? If it is all solid we would not shift it before putting the timber up.
30. I suppose the stope is something like this room—solid ? Yes.
31. And you work from the bottom ? Yes.
32. Do you work the whole width at one time or only a portion of it ? Only a portion of it.
33. And as you work, do you take one set wide at a time ? Yes ; if it is soft we take out one set altogether.
34. Do you work out one width right through ? Yes ; from wall to wall.
35. And then you work out another width ? Yes ; always from the foot to the hanging-wall, so as to block both timbers.
36. How do you describe the place we are speaking of ? Just on to the 500-foot level, between the 600 and 500 levels.
37. When was that first worked ? Something like four years ago. Something like two years ago the ground all came away and broke the timber away.
38. Whereabout did it give way ? On the stope that the Commission saw at the mine yesterday. The timber was bad, and new timber has been put in. We have been taking out the stuff that gave way, and putting in new timber. The back there has been standing for two years.
39. When that came away you were then at the mine ? Yes.
40. Were you down the mine on the spot after it gave way ? Do you mean on the first occasion ?
41. Yes ? It only gave way gradually ; it eased off. We knew it was coming, and we let it stand till it was settled.
42. You mean it gave way in small quantities at a time ? Yes ; we knew it was coming. We kept the men working there till all was quietly settled down.
43. There was no heavy fall at that time—nothing unusual ? No. It gradually crushed away on the timbers ; what we called settled down. The friable stuff settled off to the hard back.
44. Were you down the mine about that time examining that locality ? Yes ; I went all through it. I have been through the stope hundreds of times during the past eighteen months.
45. Was anything noticeable then to suggest further fall ? No ; there has been no fall from that time up to this.
46. Was there anything in any way suggestive of danger ;—did you see anything in the roof ? No ; nothing to speak of. Before we started to repair the stope we could go right over the back on the old timber, and all that came away. We went over it, and removed everything that was loose.
47. Did you take down all the loose stuff you call backs ? Yes.
48. After taking down the loose stuff, when was it next worked ? We went all over the backs before we started to take out.
49. When would that be ? Something like eighteen or nineteen months ago, the first time.
50. It had some months to settle in the meantime ? We were continually going over the backs. We were two or three days at a time going over them.
51. When you started to repair, had the fall ceased ? Yes.
52. What would be the size of the opening at that time ? Do you mean at the time we started it ?
53. Yes ; nineteen months ago, you say ? I should say 50 feet long.
54. And how high ? It was not very high ; you could reach it with your hand all along at that time.
55. What would the width be ? I suppose about 30 feet.
56. In walking on to the timbering, after passing through the passage I saw yesterday, which would be the longest direction—from the left to the right ? As we were looking at the fall, that would be the longest way.
57. That would be at right angles ? North to south. The foot-wall you saw on the left-hand side was the course of the wall.
58. Do you mean the left-hand side as you face the wall ? Yes.
59. What was done when you got to work to repair it ? The stope was all timbered close ; a piece of heavy ground came away and crushed the timber down.
60. That was the effect of the fall two years ago ? Yes ; we had to take out all the stuff and put in fresh timber.
61. Then it was timbered at the time of the fall ? Yes, close timbered.
62. What did you do when you started work to repair ? We had to work back towards the foot-wall. We had to put in large sills on which to build the timber, and we had to work away the foot of the sill to get a solid foundation for the sill timber to rest upon. If we had put timber on top of the sill, we would still have had to take away the sill of mullock in order to get the foundation for the timber.
63. Otherwise it would give no foundation ? No. Since that time we have been carrying on the timber as you observed. I suppose we put in there, since we started, 700 or 800 sets of timber—anyhow, 600 sets.
64. What height would it be—about 14 feet—how high are the sets put up ? About six sets high—then we have been filling with mullock as we were bringing them up.
65. Were you there yourself pretty frequently during this work ? Yes.
66. Did you sound the wall in the roof ? Yes ; I sounded all round, as far as I could reach, only a week before the accident.
67. Did you see any sign of the ground being treacherous or uncertain ? None whatever.
68. Was there any crushing or flaking between the nineteen months ago, when you started to repair, and the time of the accident ? No.
69. The accident occurred on the 24th May ? Yes.
70. You say you were there a week prior to the 24th May ? I was there, and sounded it with another man.
71. Who was the other man ? Prideaux, a man working there.
72. Is he alive, or is he one of the men that were killed ? He is one of the men that were killed.

73. What was the space left untimbered then? I should think about 20 feet high, and, I suppose, about 25 feet wide. It was not that all the way—only on the foot-wall side, because the hanging-wall side came out on a slant. It would be only about 12 feet high on the hanging-wall side. When we got the ground to run like that along the foot-wall, we always considered it was pretty safe.
74. Why was it that you considered it pretty safe? Because it was like a foot to it. It was resting on the timber, right against the foot-wall, like an angle. It formed a support to the timber should any pressure be on it.
75. You said it was about 20 feet high on the foot-wall side;—how wide did you say it was? About 24 or 25 feet.
76. What was the length? It ran away on a level from the timber. We were cleaning out this old pile, and the rill ran away from the timber, I suppose, 10 or 12 feet from the timber.
77. You say you also built up a wing? Yes, on the hanging-wall side.
78. And you were prepared to do—what? To put in sill-pieces from this wing to the foot-wall.
79. And, in order to get a foundation for the sills, you required to clear away the mullock? Yes.
80. Was that the position of affairs when you were last down the mine, or before the 24th May? Yes; I was down two days before—on the Wednesday before the accident. On the 22nd May I was through there.
81. Was that the position of affairs on the 22nd? Yes; they were getting ready to put in these two sill-pieces.
82. Who were working there then? Mason, Prideaux, and Downes. Two of these men were working there eighteen months.
83. Who were they? Prideaux and Downes.
84. You say Prideaux is dead;—what about Downes and Mason? They were also killed.
85. Were there any other men engaged working there besides the three you have mentioned? Yes; others were there shifting the mullock for them.
86. Who were they? Havelock, Edwards, Bennetta, Smith, and Gawen.
87. Smith and Gawen are alive, are they not? Yes.
88. What about the other three? They are dead.
89. There were six men killed? Yes.
90. Were there any other men who either worked on that stope or near it? Not that week. There were two men working on the other end of the stope.
91. Who were they? O'Neill and Thomas.
92. How far away were they? I suppose about 40 or 50 feet.
93. Was there anybody else whose work would take them in the neighbourhood of the spot where the fall took place? There was another man who went there that morning to receive some drills.
94. Who was he? I think Brock was his name. He was there a short time before the accident.
- Mr. Edwards:* His Christian name is Alexander Baird Brock.
- Commissioner:* The reason why I ask is that the responsibility is cast upon me, more or less, now to find out who can speak of the condition of this stope both before and after the accident, and I shall have to issue summonses to such men as may be able to speak about it.
95. Would there be anybody whose duty it was to inspect that part of the mine? I always inspected it.
96. Would there be anybody besides yourself? The shift bosses go through, too. It is their duty to look at these things.
97. How often did they go through? Twice a day.
98. Who were the shift bosses? Driscoll and Bennetta.
99. Did you receive any complaint from any workman with regard to the condition of the stope? None whatever.
100. Or was any report made to you by any shift boss or workman under you? No.
101. Are there any rules of the mine with regard to workmen reporting danger? Yes.
102. Have you a copy of the rules with you? No.
103. Is the report made to you in the first instance? To the shift boss that comes along. It is a recognised rule that the miners, if they see anything dangerous, are to report the matter at once to the shift boss.
104. Are the men given a copy of the rules? They are posted on the explosives magazine door.
105. Does each individual get a copy besides that posted on the door? No.
106. The accident, you said, occurred on the 24th May;—how many shifts did you have at that time, and during the previous week? Only the one shift—day shift.
107. That comprised how many men? Three miners and the truckers.
108. Were the truckers engaged in wheeling out the mullock? The mullockers were.
109. They were wheeling it away? Just trucking it back from the stope.
110. Out of the six men, who were the miners? Prideaux, Mason, and Downes.
111. How long had they been working? Eighteen months.
112. At that particular spot? At that particular spot every shift. I do not mean to say the exact spot in which they were killed, but in that stope.
113. Were they men of experience? Yes; I worked with Prideaux as his mate twenty-nine years ago.
114. What was the first you heard about the fall? I heard of it on the Friday morning underground; I was on the 700-foot level; I was just about taking the cage to go up.
115. That was the 24th May? Yes.
116. Did you go to the scene of the accident? Yes.
117. About what time was it when you got there? Directly after it had happened.
118. What time in the day would it be? Between 9 and 10 o'clock.
119. Will you say what you saw at the time, and what was done? I could see the men were buried; we started to relieve them at once.
120. What difference did you notice in the appearance of the roof;—had there been a fall? Yes; there had been a fall.
121. To what extent;—can you say? When I got there first there was a good big fall—I could not judge it.
122. Can you say how much the opening was increased by;—you stated it was 20 feet by 25 feet? It was increased a good deal.
123. Roughly speaking, what do you consider it would be—give me an estimate? I should think over 200 tons of stuff came down, and that would make a pretty large hole.
124. Would that be about 200 cubic yards? No.
125. Does it go a ton to the cubic yard;—can you say how much it weighs? I suppose it would weigh about 5 tons to the cubic yard.
126. Did I understand you to say that the sets of timber that are standing there now were standing there on the 24th May? Yes.
127. And the fall would be between that timber there now and the face of the stope? Yes; on the side.
128. The right-hand side? Yes.
129. Did any further falls take place after your arrival? Yes; there was a bigger fall afterwards.
130. How long after? About three or four hours; something like that.
131. When you arrived on the scene could you see the men, or were they covered up? They were covered.
132. What took place with regard to the rescue? We started to clean away the dirt to take the men out, and we placed timber from the timber on to the dirt after the fall for the protection of the men engaged in taking the dead men out.
133. You mean to form a roof for their protection? Yes; in case of another fall.
134. Had you unearthed any of the unfortunate men before the next fall took place? Yes; two.
135. Were they dead? Yes; both dead.
136. Which two? Bennetta and Edwards.
137. Can you say whereabouts they were;—would they be close to the face of the wall? They were about 5 or 6 feet away from the timber.
138. What took place when the second fall occurred;—you say there was a heavier fall about three hours after you got there;—was there any further damage done, or anyone injured? No.
139. Did you continue the work of rescue? Yes.
140. And did you recover the other men? We recovered the whole of the bodies then.
141. Was that the same day? No; on the Sunday morning.
142. Were they all dead? Yes.
143. Has anything been done since you recovered the bodies? No; nothing.

144. Have there been any further falls since the 24th May? The only opinion I can form is that the blind soapy head behind the men gave way, as the result of pressure or something to ease it, such as blasting or something of that sort. It has been eased in some way, and the air must have got behind it.
145. The first factor is what you call a soapy head? Yes; right away at the back.
146. How did you come to the conclusion there was a soapy head;—have you examined the wall? I have only seen it since the fall.
147. Have you examined the face as it now stands;—does that present the appearance of what you call a soapy head immediately contiguous to it? Yes.
148. What is a soapy head? A joint between the rocks; it is affected by water, and forms a greasy kind of substance.
149. Supposing there was no pressure, is that under ordinary conditions liable to give way? They hang together for a considerable time. They are not good things. We do not like them. If we can detect them we always rectify them.
150. What would be the indication of a soapy head—moisture, or do you tell by sounding? You might sound a big rock, and a soapy head might be behind it; but it takes so ne pressure sometimes to remove it; if there is a heavy pressure, it will very often give way quickly.
151. Can you get a layer of the soft material between the two faces of the rock and the soapy head;—are there two flat faces of rock joined together? It is like a wafer between them. You might not be able to see it; you can just get a thin edge between them.
152. Would the firing of shots in the neighbouring levels tend to disturb that soapy head? Yes; in fact they were firing where the accident happened in taking away the back rock. They had to blast to remove it.
153. Did you come across that soapy head in other parts of the mine? I have not seen any for a considerably long time.
154. On what levels have you found them? On the upper levels No. 4.
155. No 4, and others above that? Yes.
156. What would they be in? You get them where there is friable stuff. Sometimes where there is iron, and sometimes where there is mullock, and in all kinds of places; but they are more dangerous where there is softer ground.
157. Can you say what would be the depth of stone between the old face before the fall and the face as it now stands since the fall? No; I cannot tell you.
158. Can you give an idea—say, in feet or inches;—I do not want to tie you down to anything definite? No.
159. In the case of a fall of that kind, do you get any warning in the way of crushing or flaking? We often do when there is a pressure like that.
160. The pressure causes the flaking? Yes.
161. And in course of time it causes dislodgment of the whole soapy head? Yes; of course in this case there was no flaking at all.
162. Do you not always have some kind of flaking when the pressure is making itself felt? In most places we do.
163. I suppose that if there had been flaking in this instance it would have been a strong indication that pressure was being exerted in that part of the stope? Yes, it would be.
164. But does the fact that there is no flaking indicate that there is nothing more than the ordinary pressure? In this particular place where the accident occurred there was no sign of anything whatever until it collapsed; there was not the least sign.
165. I wish to know whether the fact that there is no flaking is an indication that there is no more than the ordinary pressure being exerted? If there was no flaking you would not consider there was any pressure about at all.
166. I suppose there is a large amount of pressure in every part of the mine from the superincumbent weight above? I suppose there would be some; but it would take a great deal of timber to shift some of the timber.
167. Taking the 400 or 500-foot level, is the mine what you would call a dry mine? Yes.
168. When you say dry, is it absolutely dry? Yes; particularly dry in the place in question.
169. There was no moisture at all? No.
170. Would the presence of moisture in itself suggest that there might be a soapy head? No, not necessarily.
171. Do you know of your own knowledge what length of time the men had been firing shots in this part of the stope;—how long before the 24th May? I could not say. The witnesses appearing will be able to state when they fired the shots.
172. You mean Smith and Gawen? Yes.
173. Referring again to the fall that took place two years ago;—can you say what was the cause of that one? It was caused by some ground slipping away on the foot-wall; we were working on the hanging-wall side when it shifted and carried the timber away.
174. Would that be from want of support? No; the weight was too great for the timber.
175. On the foot-wall side, I mean? Yes; the timber was not support enough.
176. That slip pushed out the timber on the foot-wall side, and fetched down the timber on the hanging-wall side? Yes.
177. Since that fall about a couple of years ago, has not that particular spot where the accident happened stood ever since without timber? Yes.
178. And, you say, over nineteen months without a fall? Yes.
179. Have you had falls in other parts of the mine, either in stopes or drives, where there was no timber? No.
180. Have you had falls or crushings where there has been timber? Yes.
181. Where would that be—in stopes or ordinary drives? In stopes; the drives never fall.
182. Where you had falls on the timber, were they places where the ground was treacherous and uncertain? The ground was very sound in those places.
183. In this hard, solid formation, from the 500-foot to the 800-foot level, have you had any experience of a similar fall without any warning? We have had no fall at all.
184. What time would the shift begin on which Prideaux and his mate were at work that day? At 8 a.m.
185. *Inspector Milne.*] How many sets wide were you working that ground? Four sets.
186. At the one time? One set; four sets wide and one set to the face.
187. How far would that necessitate the men going out from the timber? Just about 6 feet.
188. The work they were doing at the time was really outside the one set wide? Yes.
189. Had they received any instructions to go outside the one set wide? No.
190. Then they had done that on their own responsibility—going outside the one set wide? Yes; I suppose they did.
191. What would be the distance from the face of the timber to the breast of the ground? I could not tell you; I never measured it.
192. Give a rough guess; take to the face? I do not know whether you mean to the rill of the pile.
193. From the timber to the face of the ground? I daresay about 15 feet; but the men were not working there.
194. *Commissioner.*] When you speak of the face, do you mean the actual spot where you strike the solid wall? From the timber *Inspector Milne* referred to up to the breast we were looking at yesterday.
195. *Inspector Milne.*] What I want to know is the amount of ground standing open from the timber to the breast; *Mr. Mayne* says about 15 or 20 feet;—the ground is slightly arched from the breast? Yes, and also from the hanging-wall side.
196. At any time you have been in that stope have you noticed any cracks in the back? No, never.
197. Well, how long would it be previous to the accident that the back was sounded? I went over it myself with one man a week before.
198. Do you think it would have been possible to have found any baulked ground? Yes, it would be possible.
199. And is it possible for the soapy head to exist in ground that would not give a sound? Yes; it is possible for it to be there and not visible.
200. Would it be possible for a soapy head to be there—say, a foot or 18 inches thick—that would not give you a sound? I have sounded where there have been soapy heads, and they have not sounded solid. It all depends whether there is a large quantity of stuff on the soapy head or only a small lot.
201. In what thickness of ground do you think you could get a sound of baulked ground on a soapy head? I could not say. It might be 10 feet away, and you would get a sound, and it might be only 1 foot away and you would get no sound.
202. It is almost impossible to tell? Yes.
203. *Commissioner.*] How wide is each set—are they square? Not perfectly square; 5 feet 2 inches one way and 4 feet 2 inches the other.
204. And the height? 6 feet lengths and 7 feet lengths.

205. When you are stoping, do you work by putting the set first of all from the foot-wall? Yes.
206. After having got the four sets in across the width of the stope you then go on towards the breast? Yes.
207. And build up to the necessary height to secure the roof again? Yes.
208. When the men are building up the next row of sets in advance they have to be out under the unsupported roof, have they not? Yes.
209. It is necessary that they should take their chance over 6 feet of space? If we have any doubts at all we would timber over it.
210. It is part of the instructions given to the men—do they know that? Yes; the two men were paid an extra shilling a day more than the ordinary rates in the stope to supervise and use all precautions they could. They were like bosses over the stope.
211. Like two bosses on the spot? Yes; just the same as two bosses at an extra shilling a day.
212. Why did you pay them an extra shilling a day? To carry out the work properly; they were experienced men.
213. Was there any extra risk in the work which called for the extra shilling a day? No. It was given to them to encourage them to do the work well.
214. Nothing more than that;—just to encourage them? That is all.
215. Not for any responsibility or greater risk than usual? No.
216. When did they first get the extra shilling a day? When they first started.
217. Nineteen months ago? Yes.
218. *Mr. Edwards.*] You say that Prideaux was an experienced miner, with Downes? Yes.
219. Before he went into the South he was a shift boss at the Central, was he not? Yes.
220. He was thoroughly competent to judge of the safety of the men, and to secure it? Yes; I do not think there are two better men in the mine.
221. Was Mason an experienced miner? Yes.
222. How long did you know him? Two or three or three or four years.
223. Had these men the absolute discretion to secure the ground in their own way? Yes.
224. Was the necessary timber provided in the level? Yes; any timber they would require from 1 inch to 10 inches.
225. From 1 inch to 10 inches in thickness? Yes.
226. And in what lengths? Any length that we could get it into the cage.
227. I suppose if they required it they could have had stringers from 15 to 18 feet long? Yes.
228. Could you have given them that length—could you get in the cage? We could have got about 16 feet.
229. Were these men warned from time to time to be careful of themselves, and the men working with them? Yes; every man was warned each day.
230. *Commissioner.*] Who warned them—yourself? Yes; and the shift bosses.
231. *Mr. Edwards.*] So far as you know, is there anything in securing ground that you yourself could have taught either Prideaux or Downes? I do not think so.
232. And you had absolute confidence in them as skilled miners? Yes; I have known Prideaux for forty years.
233. Did this fall come from the back or from the face? I think the first came from the face, and that released the back. Two of the men were found just in front of the timber between the hanging-wall and the foot-wall; the other three were just a foot or two from them between the hanging wall and the foot-wall, only away from the breast a few feet.
234. *Commissioner.*] The men had their legs broken, had they not? I said they were covered.
235. I thought you said they were all covered? When the men first rushed up they saw they had their legs caught, and as they tried to rescue them down came the second fall and buried them.
236. Where was Bennetts and his mate? Just outside the timber from where we were standing yesterday.
237. Are you speaking now from what you were told since the occurrence? I did not see it myself. The men who rushed in told me at the time.
238. *Mr. Edwards.*] Were you there when the bodies were taken out? Yes; when some of them were.
239. Which of them were close to the timber? Bennett and Edwards.
240. Who were the men nearest to the foot-wall? I could not say who was nearest to footwall; they were in the centre between the hanging-wall side and the footwall side. I think if anyone was nearest to the footwall it was Havelock; I believe he was a little nearer.
241. The men were engaged, I believe, in taking away the toe of this rill of dirt, coming from the foot-wall, in order to get a solid basis to build on;—you say it would be impossible to put any timber up to stand any pressure unless it had a solid foundation? Yes.
242. Do you think that if stringers were put up on the top of this rill of dirt, and then timber built up to catch up the back, that would have stood any heavy pressure? It might have; but if any great quantity of dirt came on it it might give way.
243. Say 100 tons? You could not put stringers up to hold that amount.
244. I suppose that during the time that men were putting the stringers up they would be exposed to any ground that might give way? Yes.
245. And incur the same risk in putting up the protecting timber as men incurred in cutting away the toe of this rill? Yes.
246. As a rule, I believe the dribbling of fine stuff is a warning to the miners to look out from the face or from the back? Yes.
247. Did you have any notice of a dribble from the face or back? I never heard of any.
248. I believe there was some dribbling came from this rill as they cut away the toe—the stope would naturally dribble down—would there be anything in that to indicate any danger or movement? No.
249. Do you consult with mining inspectors as to the way in which that work should be done? We go there pretty often together.
250. With Mr. Milne, and also the late mining inspector? Yes.
251. After consulting with them, did you consider you were carrying out this work in the safest manner possible for your men? I considered I was.
252. If you were working there yourself you would have done the same thing? Yes.
253. I think you said at the time of the inquest, too, that it was quite possible for ground under certain conditions to sound solid at one moment, and then within a very short period of time become baulky? Yes. Ground may be perfectly solid at one minute, and a few hours afterwards become eased, and the air getting behind it it may fall.
254. Was any notice given to you directly, or indirectly, by any person that the ground was considered to be unsafe for the workmen? No; never.
255. In no way unsafe? In no way.
256. Or that any man had any hesitancy in working in there? No.
257. *Commissioner.*] You said a moment ago that the ground may sound perfect at one moment, and half an hour afterwards give a baulky sound? Yes, that is in what we call floory ground.
258. Was this stope in what you call jointy ground? No.
259. I suppose if that is so in jointy ground, as a matter of precaution you always had it timbered? Yes, we were very careful in jointy ground.
260. And if the roof of the ground where a man is working shows any signs of coming down, would it increase the risk by firing shots? Yes, it would.
261. It would be a dangerous thing to do under those conditions? Yes.
262. You were asked whether there was not all kinds of timber at that place for use in case the ground wanted it;—was there timber there by which they could build a roof over their heads while they were putting in the sets to protect themselves? There are all classes of timber kept there for use. If any special kind of timber is required they can get it.
263. Was there timber for that purpose? They could have had it there.
264. Was it there? There was plenty of timber there. I do not know of any pieces of 16 feet length.
265. I think you said that Downes had been shift boss in the Central? Yes.
266. Do you know whether there is similar ground there? I do not know anything about the Central, I was never in it.
267. Is there any rule or system by which the shift bosses have to report to you in case they find a dangerous spot in the mine? Yes; they always report to me.
268. To the underground-manager or the manager? Always to me, the underground-manager, and I see what is required to repair it.

269. What is the rule with regard to the men;—are they withdrawn? Yes; by the shift boss, until provision is made. In ordinary working, the shift boss will get the men to put in timber to secure the ground.
270. *Mr. Edwards.*] Mr. James Hebbard, who was formerly Mining Inspector, and Mr. William Rowe, underground-manager of the Central Mine, inspected this place the day of the accident, or following the accident? After the accident—the same day.
271. *Commissioner.*] Is there anything you can suggest which would prevent the recurrence of such a fall in the future? No; that is what I should like to try and find out.
272. You say there were two tests of dangerous roofs—the flaking and the baulky sound? Yes.
273. Is there anything else you would like to say or suggest with regard to the matter? No.

TUESDAY, 2 JULY, 1901.

[The Royal Commission sat at 10 a.m. in the Council Chambers, Broken Hill.]

Present :—Charles Gregory Wade, Esq., Barrister-at-law, Royal Commissioner; Mr. W. H. J. Slee, Chief Inspector of Mines; Mr. D. Milne, District Inspector of Mines; Mr. J. R. Edwards, solicitor, representing the Company.

Samuel Mayne recalled, and further examined :—

1782. *Mr. Edwards.*] Referring to the stope before the crush took place some two years ago, at that time was it simply timbered without any filling? Yes, it was filled up to within two floors of the back.
1783. Filled with mullock? Yes; filled with mullock from end to end, and wall to wall. There were only two floors standing, and they were up against the back.
1784. And, notwithstanding that the timber was filled throughout the stope, the crush from the foot-wall broke all the timber away? Yes.
1785. I suppose there is no question about the fact that filling timbered-up stopes adds to the stability of the ground? You cannot fill right up at the back.
1786. You must leave working space above it? Yes.
1787. But a fall from the back would not create such a large hole as if the stope was simply timbered? No.
1788. Then this batter or rill of dirt up against the foot-wall was the remains of the old mullock filling in the stope? No.
1789. Was it a crush from the foot-wall? From the hack and foot-wall.
1790. Was all the mullock removed? No, the mullock was left there. The part that came away was mullock. We were shifting it back in the stope while we were putting in new timbers.
1791. What did you do with the mullock that was in the stope originally? That was used in filling up timber for, say, ten floors from the 600 feet; we filled up to the 800 feet. We worked up on two floors, and just started to fill again at the back as we came along; that is where we built the timber in to catch up the break.
1792. When you left working, how far back above the filled timbers were you before the crush? Which crush do you refer to?
1793. The one two years ago? We were two sets—about 13 or 14 feet; but the timber was not then all over this place.
1794. You said it was your intention to refill this stope with mullock? Yes.
1795. And would it have been possible for you to have put in the filling as you carried on the square sets? Just a little. I have sunk 800 feet from the surface to get a new mullock path.
1796. *Commissioner.*] From where? From the surface to the 800-foot level.
1797. Simply for the purpose of connecting with the different levels and running in the mullock? Yes.
1798. There was some evidence given to the Commission the other day that there was something like four or five floors of timber crushed down? Two years ago.
1799. *Mr. Edwards.*] In this particular spot? No. There may have been four or five sets in sinking a winze, so that we have always a chance to stope off from them; perhaps he said there were four or five sets there. We very often run up three or four sets. As far as the stope is concerned, it was only two sets high.
1800. *Commissioner.*] Was there any winze in this particular stope? Do you mean in the first case?
1801. Two years ago? Yes.
1802. Whereabouts was it? On the north end; it was sunk from the 500 feet to the 600 feet.
1803. Was it anywhere near where the fall took place on the 24th May? That winze was filled up.
1804. When was it filled up? It was gradually filled up.
1805. What was it filled up with—mullock? Yes; because we were working our chute further away. Perhaps a winze did not come in where we started on a level.
1806. You say that, when the crush took place two years ago, you timbered up to the backs in the stope;—was there any winze then in existence in this spot where the fall took place on the 24th May? No; nowhere within 50 feet.
1807. Was that the only timber;—was there not timber to support the backs? Yes; the whole stope was “close” timbered.
1808. There was no timber in the winze that a man might mistake for the back? When I say winze, I mean you would work up two or three sets for a special purpose, then get the slack away so as to carry on your stope.
1809. Was there any winze anywhere near the spot where the fall occurred on the 24th May? No.
1810. What timber was there was simply a beam carried up to the backs? Yes.
1811. What height was it between the floor of that drive and the backs where the timber was standing? About two and a half sets.
1812. Say 16 feet? Something like that.
1813. Would the level of that drive be about the same level as the spot where the men who lost their lives were working? No; it was one floor below that. It may have been three and a half sets from where they were to the back.
1814. Where they were killed? Yes.
1815. That would be about 25 feet? About 21 feet or 22 feet.
1816. And in the open space, between the standing timber and the breast, was not the cavity caused by the fall on the 24th above the level of the backs over the standing timber? Now it is.
1817. You are quite clear about this;—that at the time the crush took place two years ago, there was not more than 14 feet between the filled-in ground in the stope and the backs? That is all. The fact is, we were continually filling in at that time as we went along.
1818. At the time of the crush, were you actually working in filling up that stope, or had you stopped work? We were filling up before the crush.
1819. I mean at the time the crush took place two years ago;—were you in the act of filling up the timbers with mullock? Yes.
1820. You had not got to a certain point and then left it? No; as we were working we were filling up, and when the crush came we stopped till all was quiet again.
1821. I suppose that there is no doubt that the smaller the space is between the filled-up ground and the backs, the more solid the support becomes? If you are filled-up to within one set, that is as much as you can fill up, and then a big portion of the ground giving way would bring down the timber all the same.
1822. To the extent of that one set? Yes. You could not put timber in there in some places. I have seen a crush carry it away when it was up to within 3 feet.
1823. If it was timbered up to any height? It all depends on the crush.
1824. Take the ground in this part of the stope that we have been referring to? Well, it did not stand.
1825. Is it not a notorious fact that if you rely on timber alone it is not sufficient support? No; not in some ground.
1826. Would timber alone be a sufficient support in this particular stope? No; it would when we filled it in.

[Exhibit No. 34.]

Sir,

24th October, 1902.

On the 21st instant, I wrote to you notifying you that the firing of the afternoon shift in the Central Mine had caused a movement in our 600-foot level, and that the workings in this mine were in dangerous proximity to Campbell's shaft, which we are likely to lose.

I have received no acknowledgment of this letter, and, in the meantime I have had an intimation from Mr. Hebbard that it is possible he will go on working in this part of the mine. Since seeing Mr. Hebbard, our surveyor, Mr. Gardiner, has been in and checked surveys with the Central Company's surveyor, and also examined their plans, which show that the Central Company have made encroachments of several feet into our boundary, and, what is more serious, one of these encroachments is right into the pillar surrounding Campbell's shaft.

As this cannot be permitted to go on, and as you appear powerless in the matter, I propose telegraphing the particulars of my correspondence with you on the subject to the Minister for Mines and to the Chief Inspector, asking their immediate intervention. I may add that Mr. Hebbard told me yesterday that you had given him only a left-handed sort of notice that he was not to work at the 600-foot level.

Should any accident occur to any of our workmen owing to the mining operations of the Central Company of which I complain, I shall ask you to take your full share of the responsibility. The matter is of the most serious and urgent nature and will admit of no delay in being attended to.

I have, &c.,

V. F. STANLEY LOWE,

General Manager, Block 10 Mine.

D. Milne, Esq., Government Inspector of Mines, Broken Hill.

[Exhibit No. 35.]

Sir,

Broken Hill, 24th October, 1902.

In reply to your letters of the 21st and 24th instant, *re* Central Mine working on your boundary, I have to inform you that there is nothing in the Mines Inspection Act to prevent a mine from working up to its boundary, or that a pillar should be left between each mine as a support; therefore, I am unable to enforce this to be done. At the same time, I will do all that is possible to prevent accidents or loss of life both in your mine and the Central Mine.

In regard to the encroachments you mention by the Central Mine, that is purely a matter between yourselves, and you can take whatever steps you may consider necessary in the matter.

For your information, I may say that Mr. Hebbard has been informed he must not break ore for some little time on your boundary where it is likely to interfere with the safety of your mine. At the same time, it is absolutely necessary that some popping must be done on the loose rocks broken down by the creep, and which should be removed to make room for timber necessary to support the stope on the boundary. If this popping affects Campbell's shaft, or any other part of your workings, it seems to me a wise precaution to remove your men from the affected area.

In notifying Mr. Hebbard ore was not to be broken on the boundary at the 500 and 600-foot levels in his mine, and in drawing your attention to the insecure state of the ground in the neighbourhood of Campbell's shaft, and the necessity for withdrawing your men from such insecure ground, I consider I have done all the Act allows, and the responsibility of working the mines rest with the Manager, not the Inspector of Mines. I would urge on you the necessity of vigorously pushing on Harvey's shaft and connections, thus rendering yourself independent of Campbell's shaft, and to secure the safety of workmen employed in your mine, and also the necessity for locating the cavity which is suspected to exist somewhere above the recent creep with a view of securing it, and thus preventing a danger which menaces the safety of your mine.

I have, &c.,

DAVID MILNE,

Inspector of Mines.

V. F. Stanley Lowe, Esq., General Manager, Block 10 Mine, Broken Hill.

[Exhibit No. 36.]

MINES INSPECTION ACT, 1901.

NOTICE.

To James Hebbard, Manager, Central Mine, Broken Hill.

WHEREAS at the above-mentioned mine I find the following matter which is not provided against by any express provision of the Mines Inspection Act, 1901, or by any special rule established thereunder, namely, that ore is being broken on the boundary of your mine and Block 10 Mine in the stopes at the 500-foot and 600-foot levels, and the shooting has again started a slight movement in the creep. On the 15th September, 1902, I verbally requested that no more ore should be broken on the boundary until such time as the creep had fairly settled down.

AND WHEREAS I am of opinion that the said matter is dangerous or defective, so as to threaten or tend to the bodily injury of workmen employed in Block 10 Mine, as it jeopardises Campbell's shaft:—

Now I hereby give you notice to remedy the said matter at once.

the 24th day of October, 1902.

DAVID MILNE,

Inspector of Mines.

[Twenty-three Plans.]

THE SULPHIDE CORPORATION LTD

CENTRAL MINE

BROKEN HILL

UNDERGROUND PLANS

Scale: 160 Feet to an inch.

Showing works completed up to 30-12-02.
Work done during Half Year shew in red

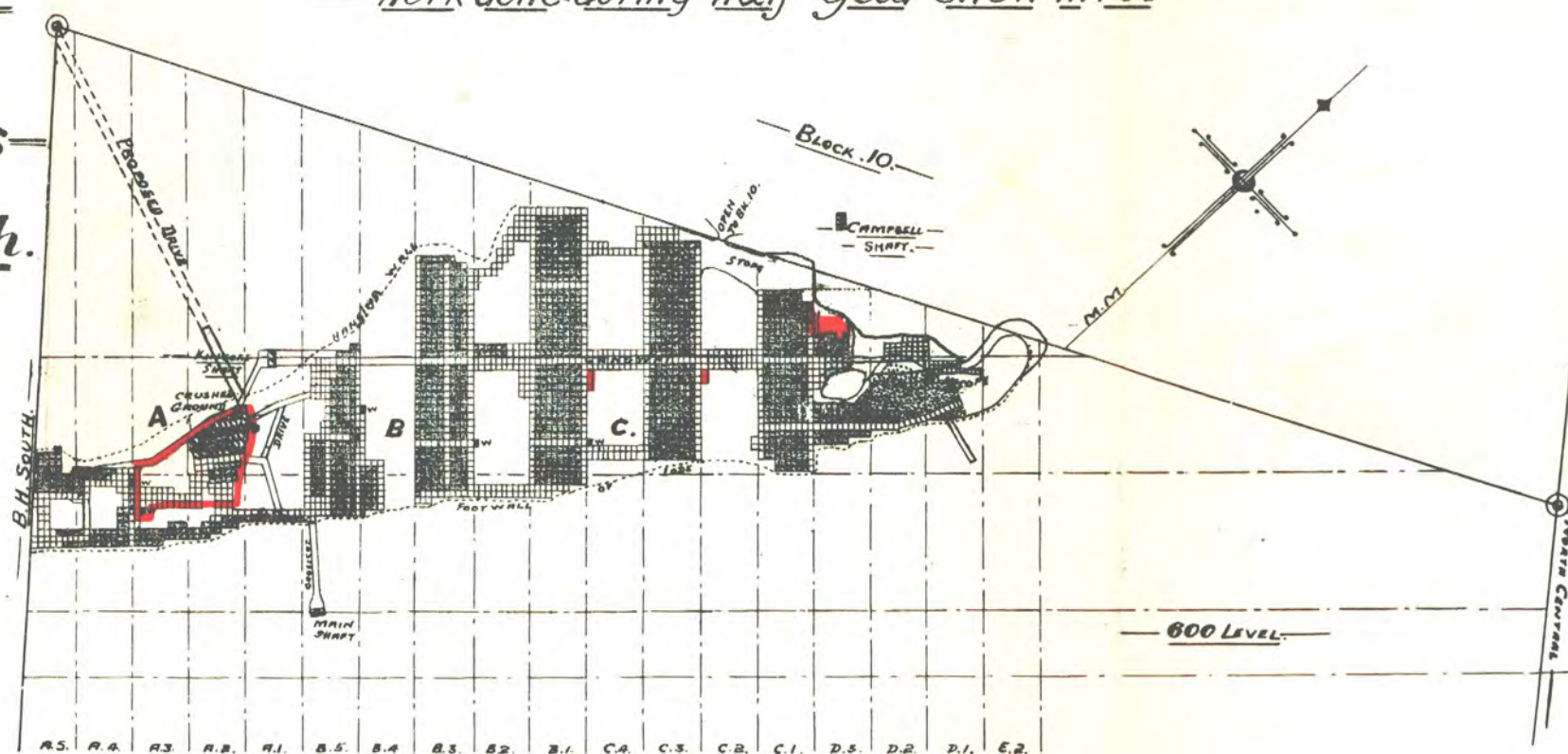
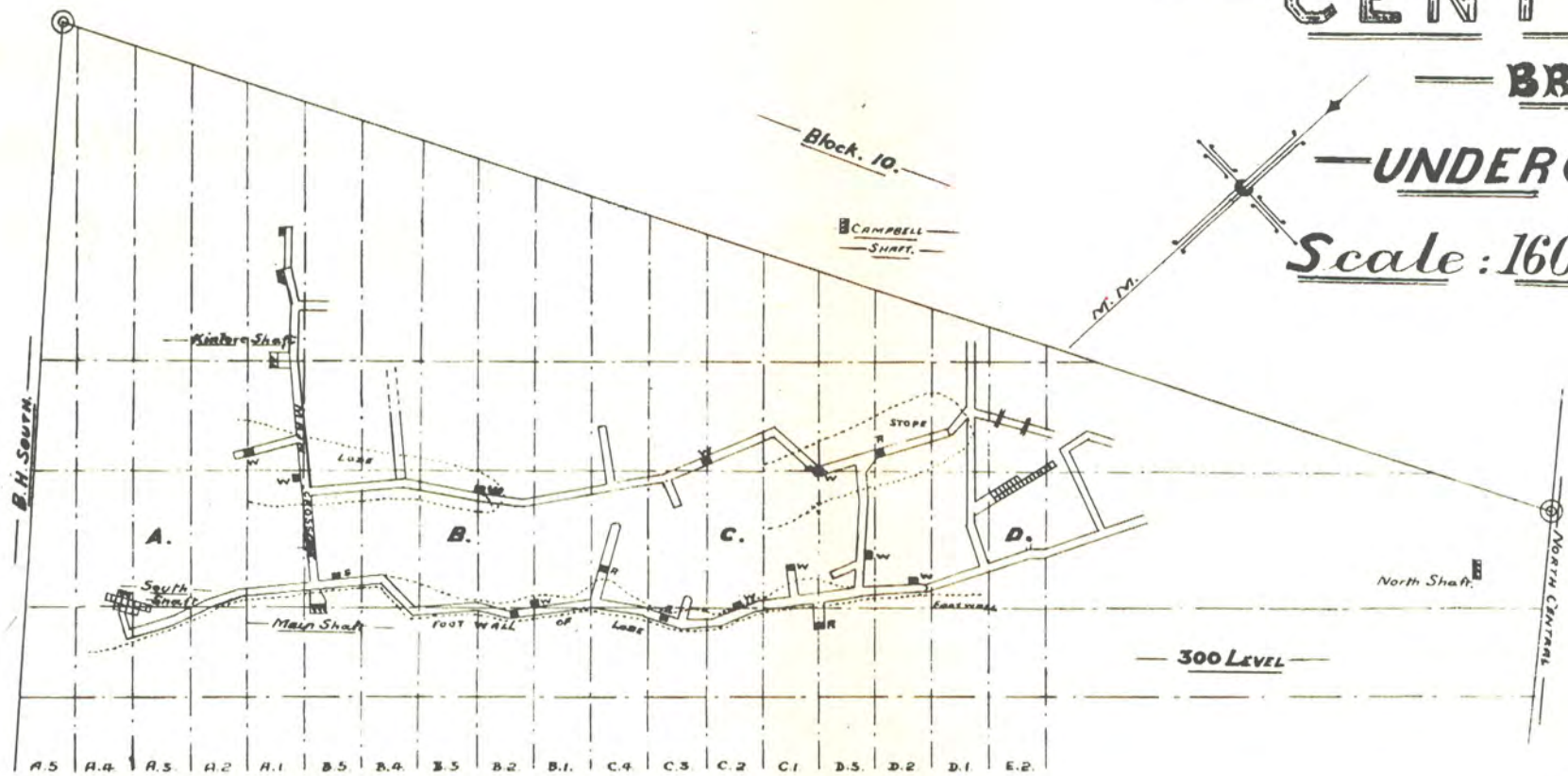
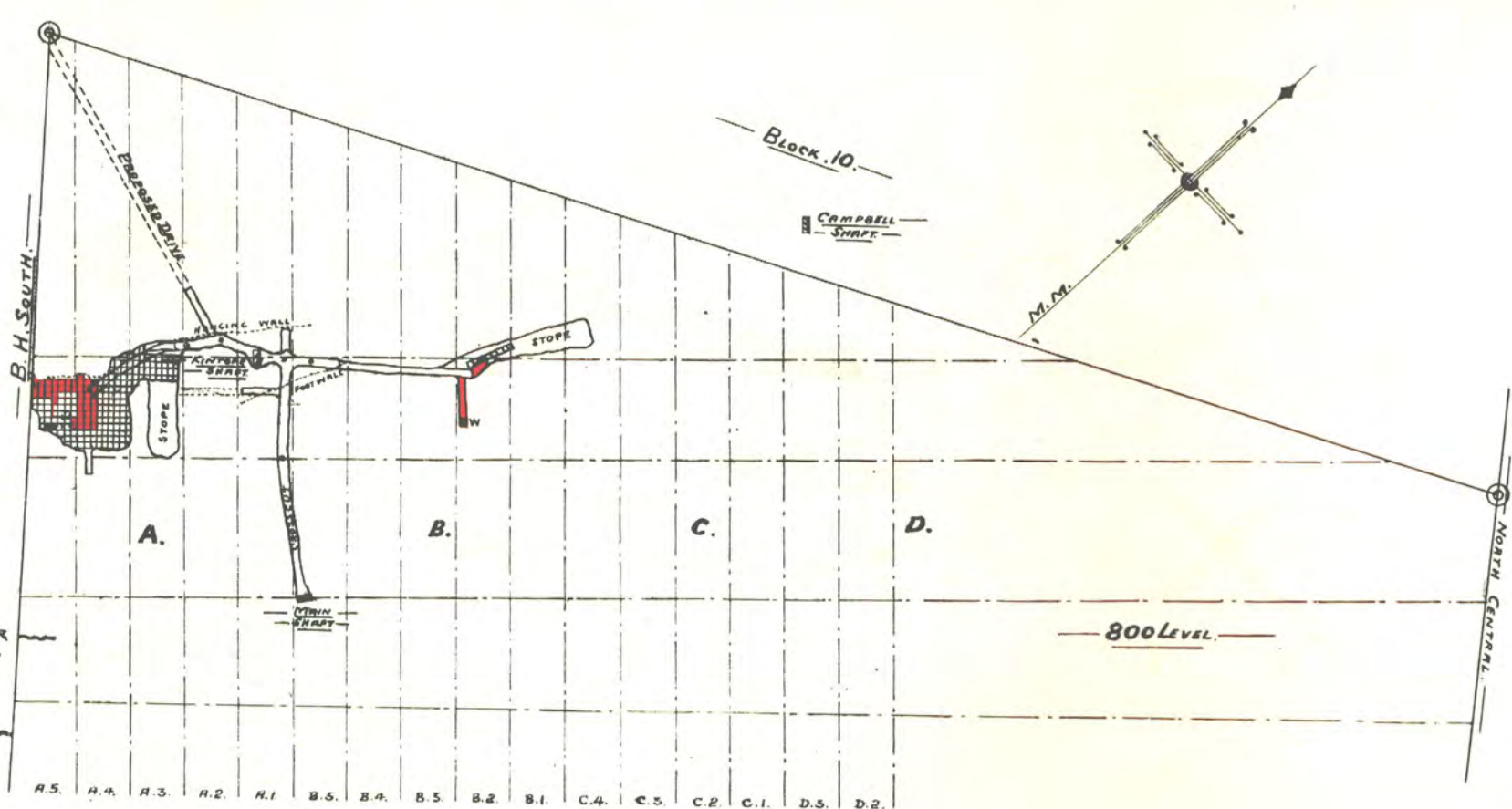
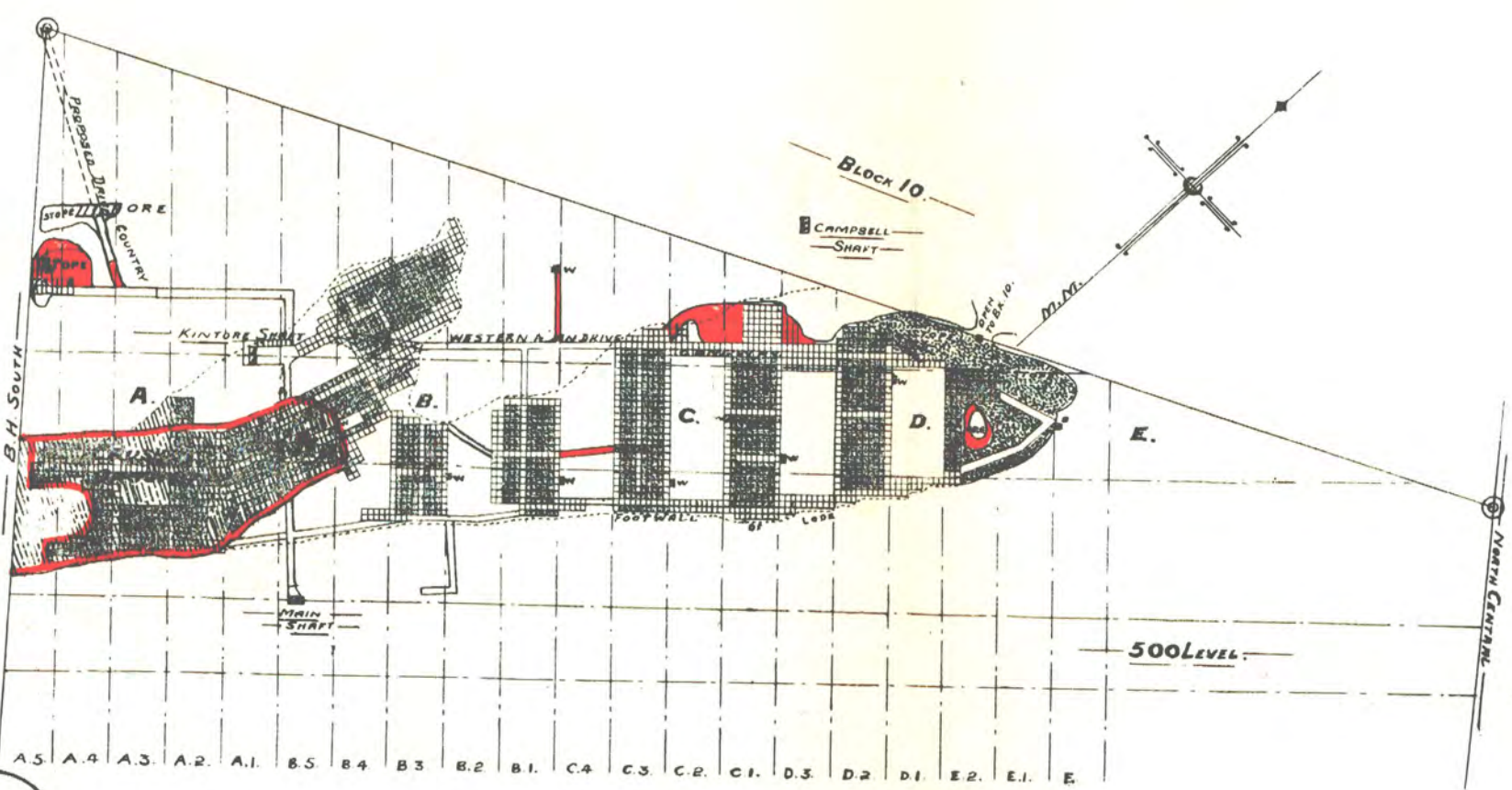
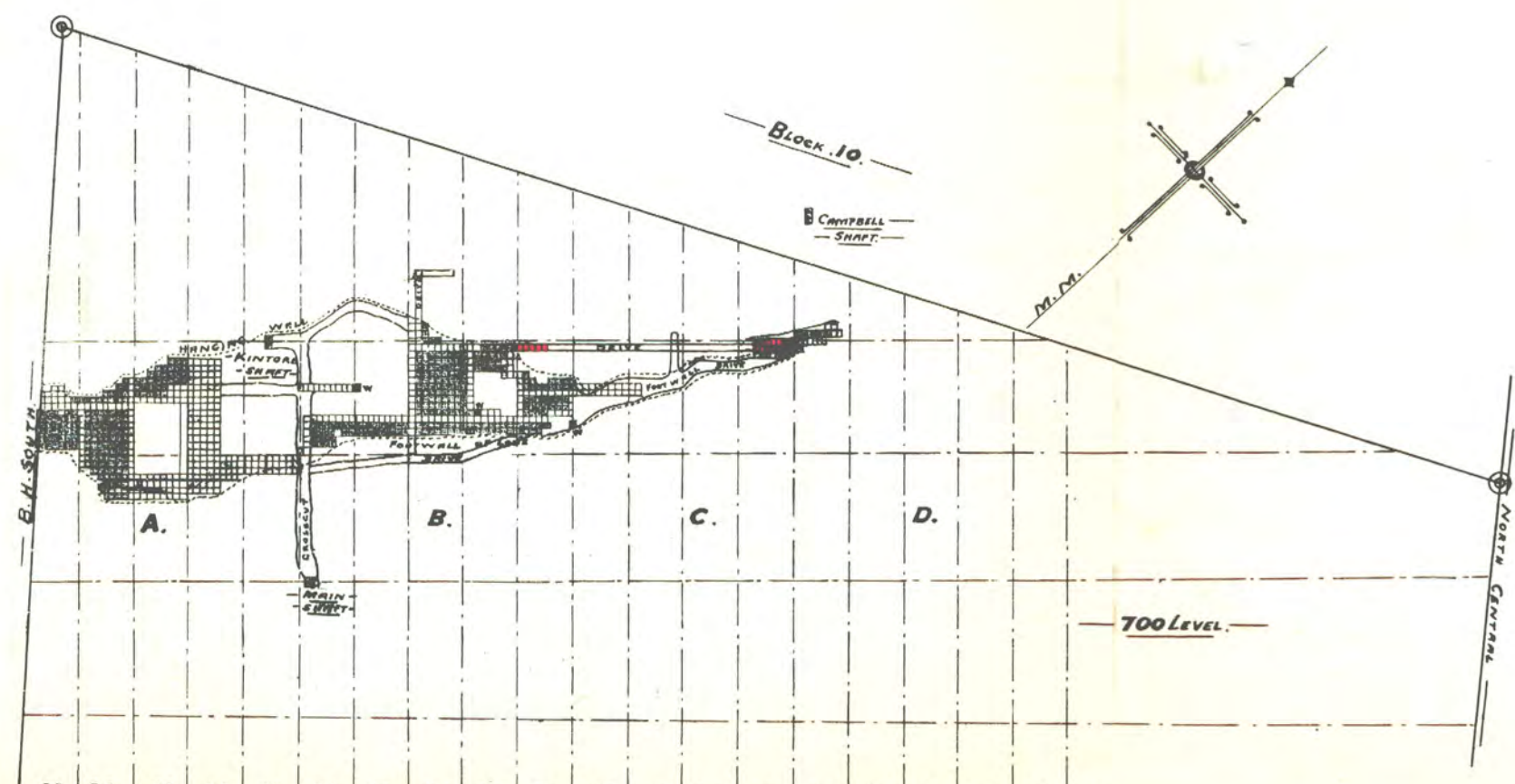
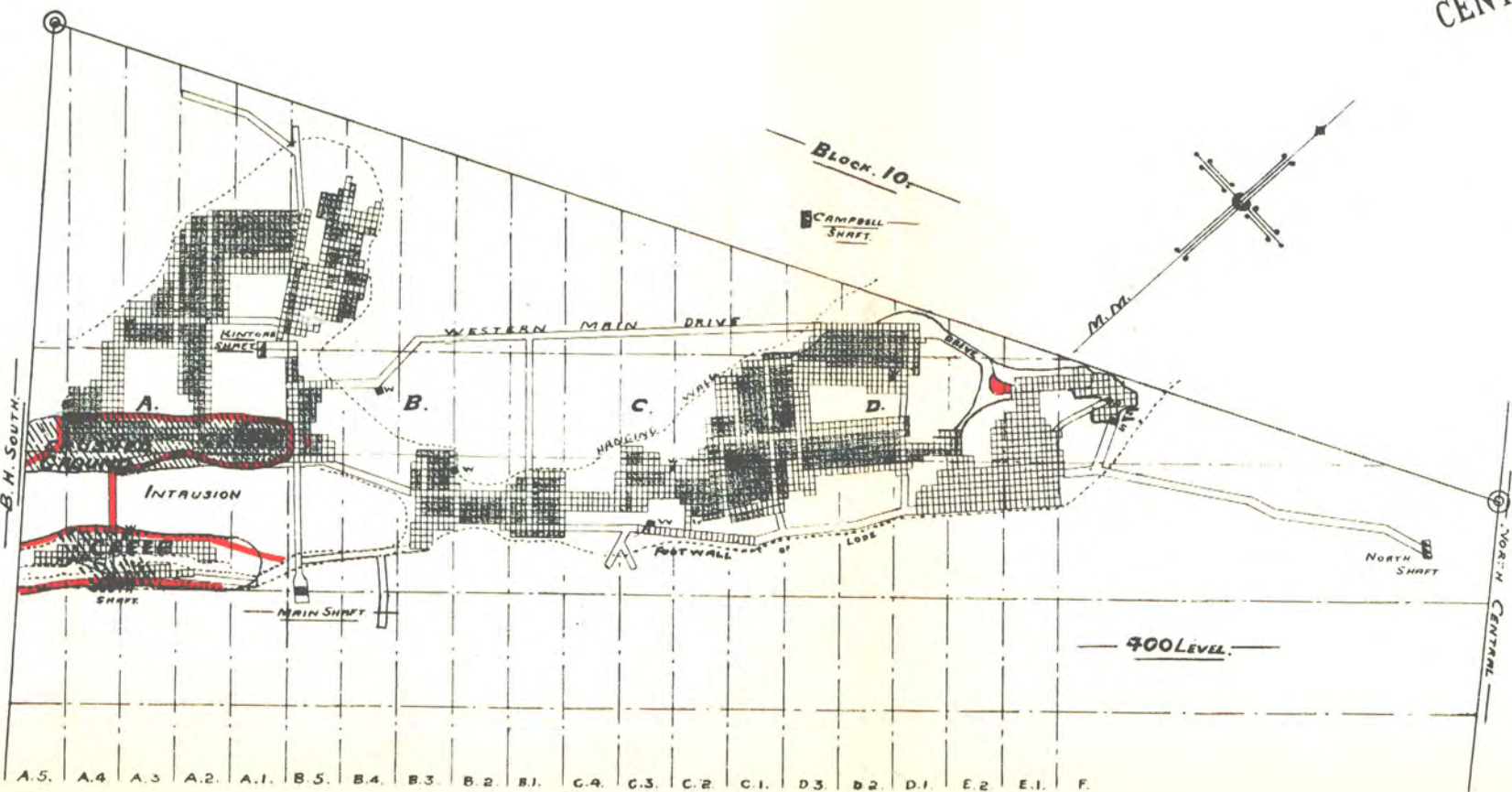
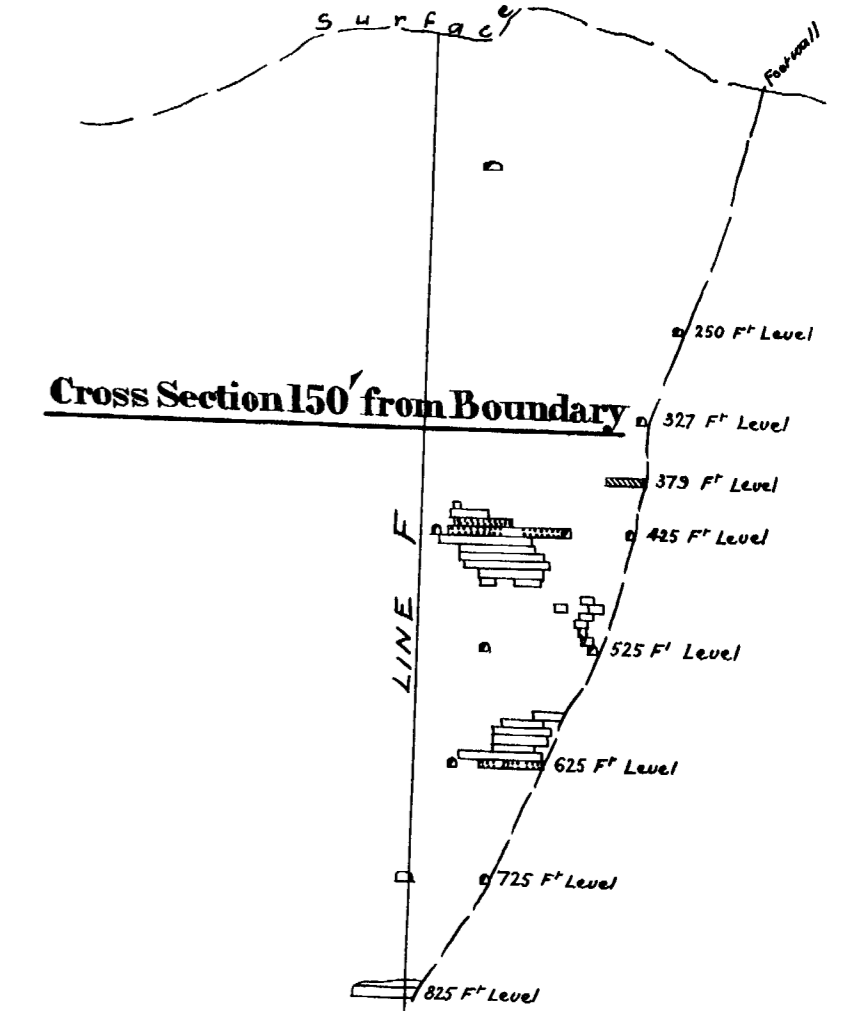
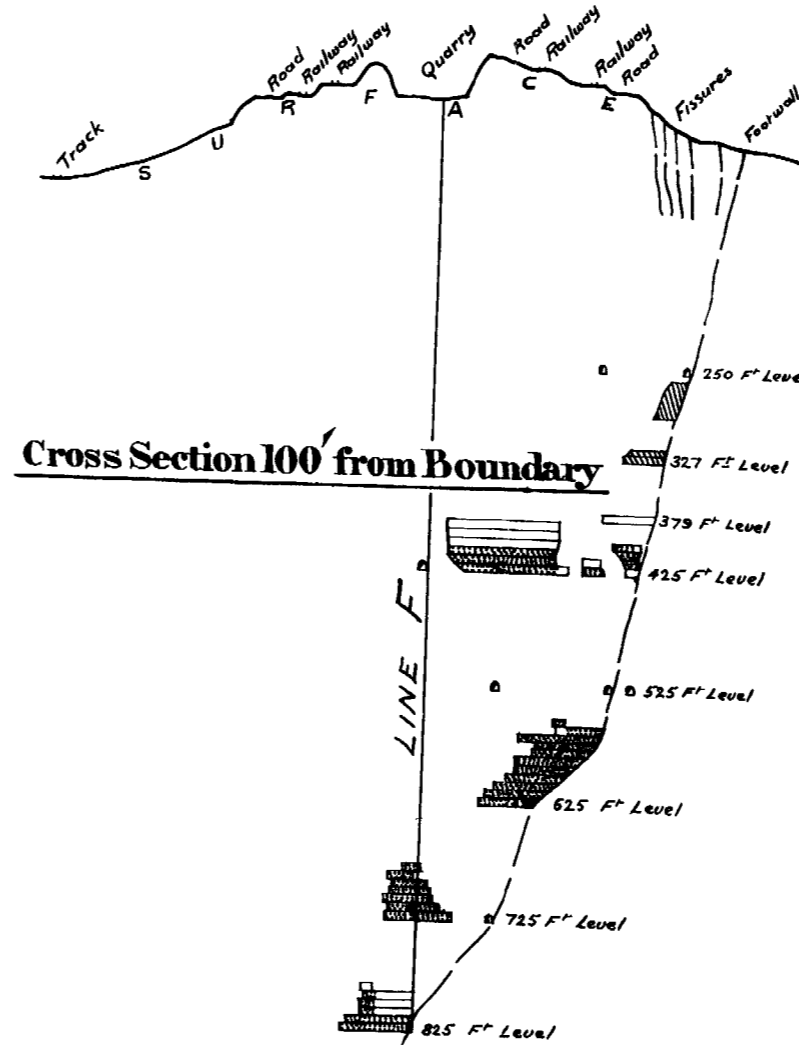
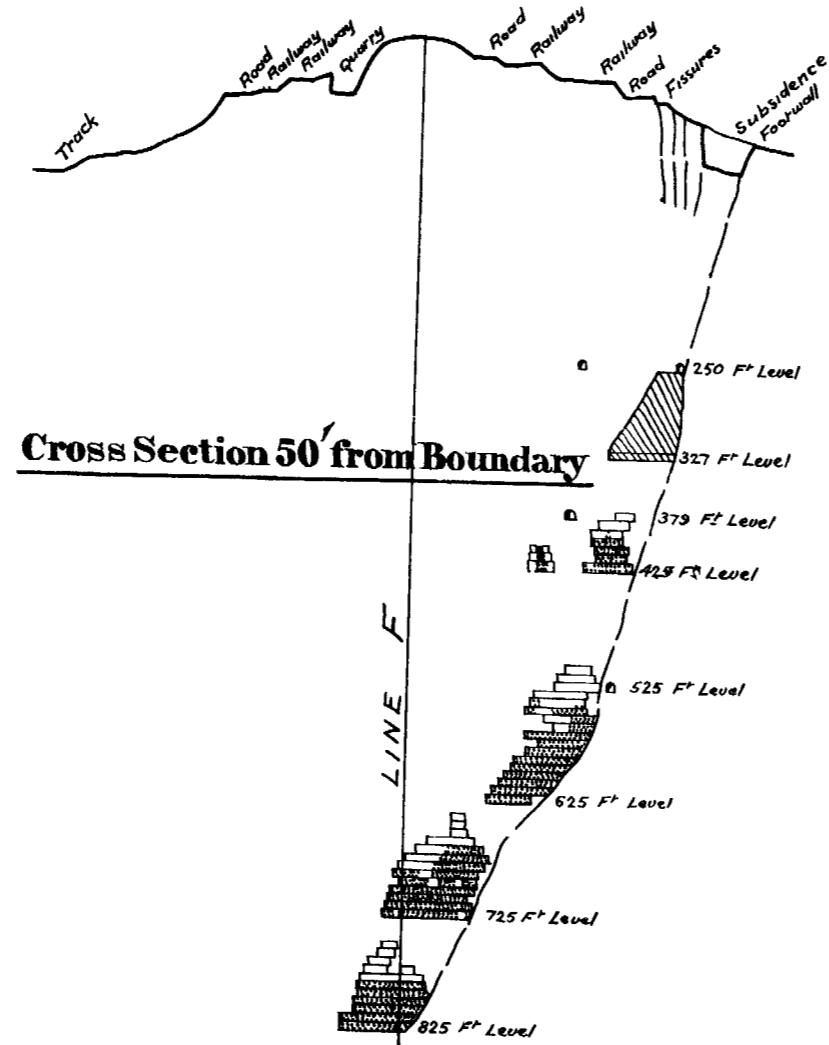
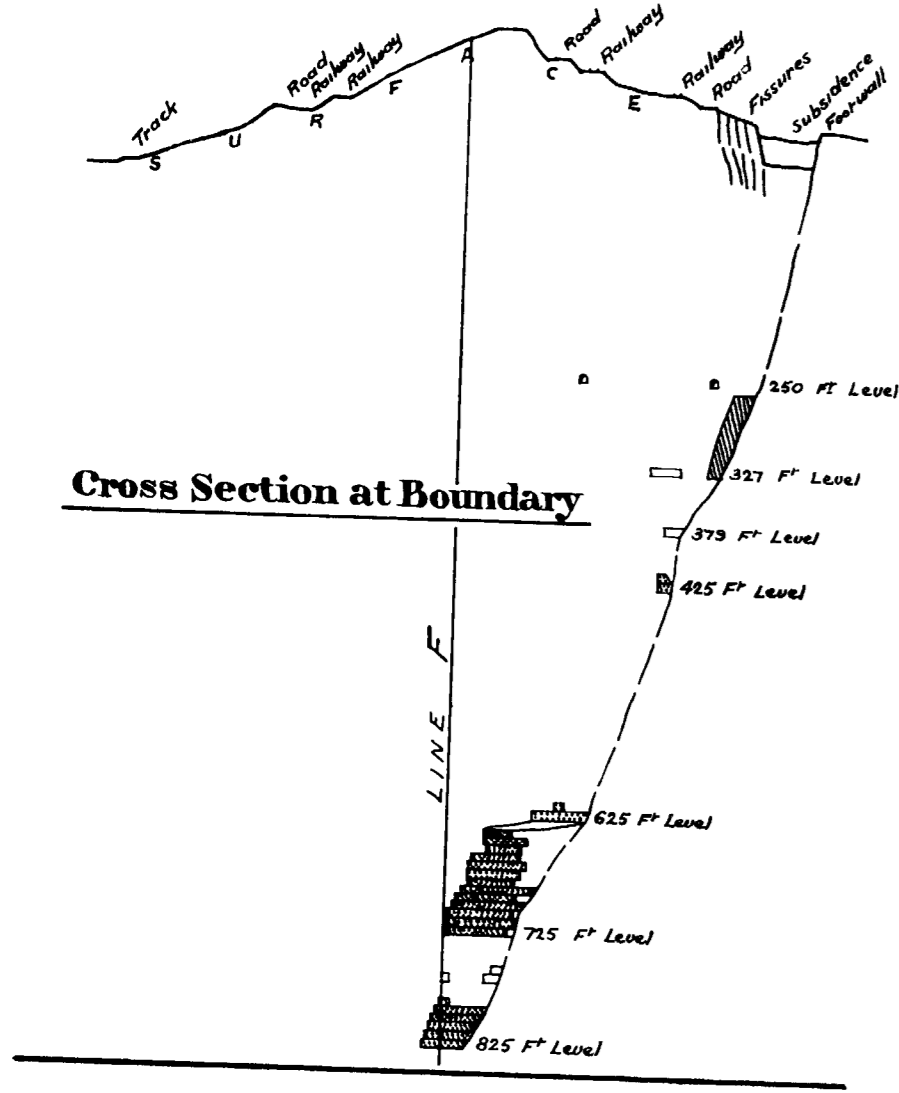


Exhibit No. 1.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.
March 10th. 1903.



A. Conway
GENERAL MANAGER
Edwin H. Beaumont C.E.
SURVEYOR



Cross Sections showing all Mining Operations on all Levels
Filling shown by Dots

SOUTH MINE

SCALE OF FEET
0 100 200 300 400

Albert W Stohr Surveyor 24th March 1903

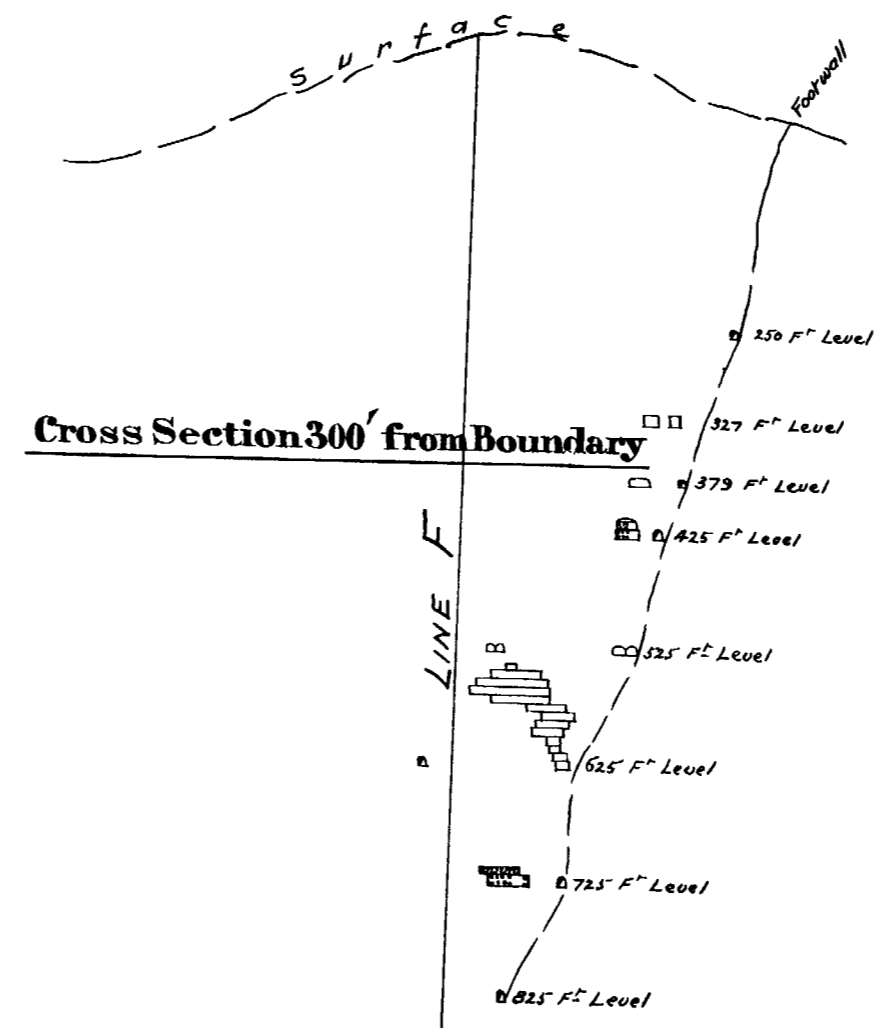
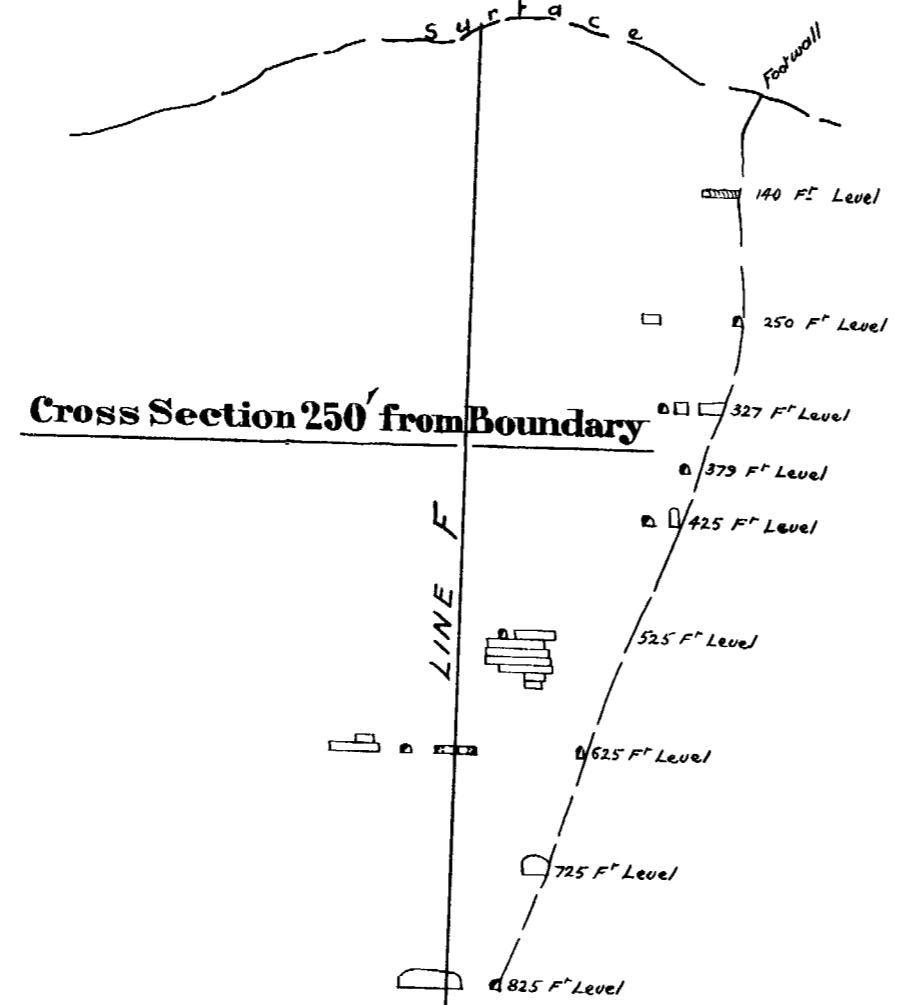
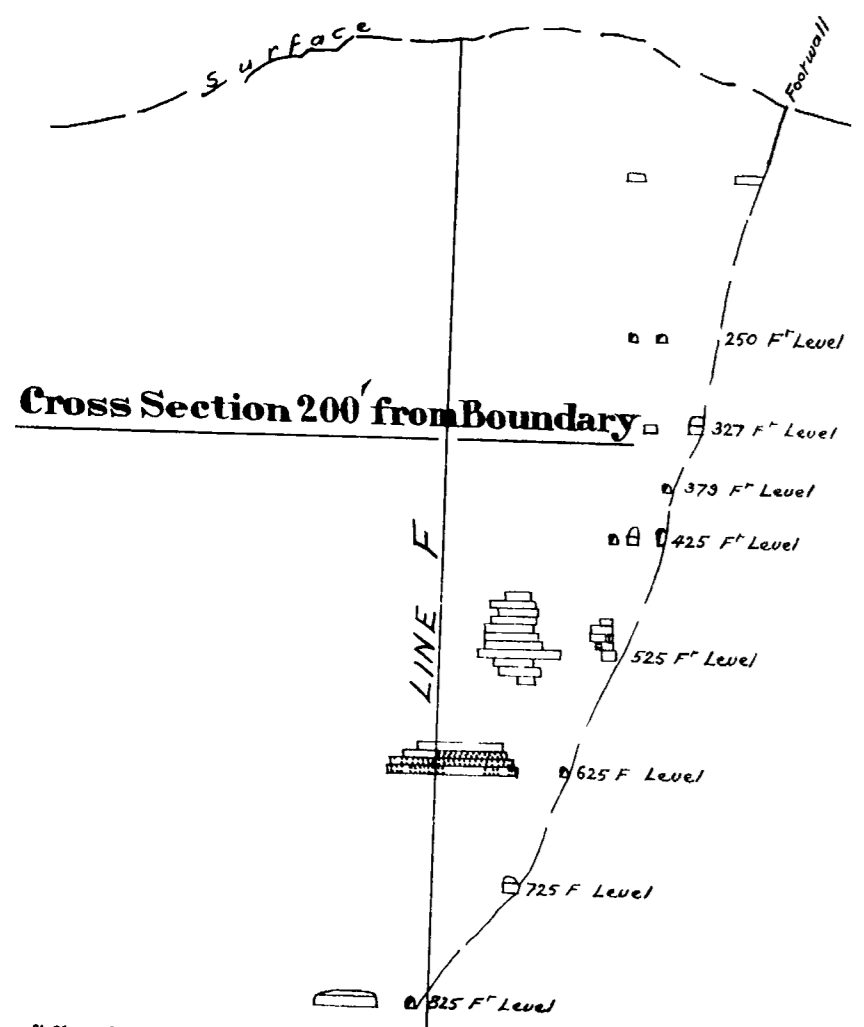
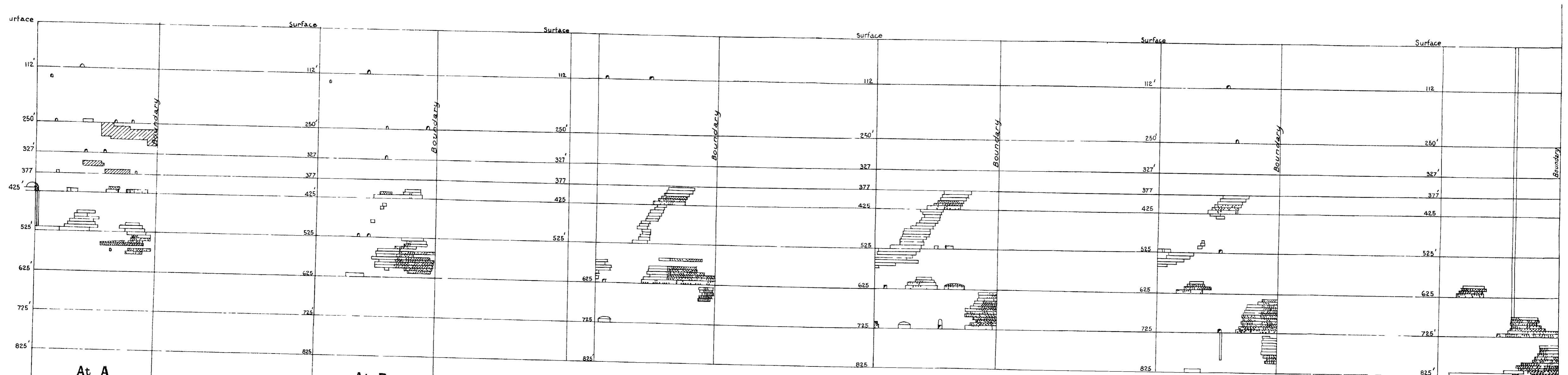


Exhibit No 31
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL
O Dumeath Cooper,
Secretary
March 27th 1903

Photolithographed by
H A Gair & Government Printer
Sydney N.S.W.



At A

At B

At C

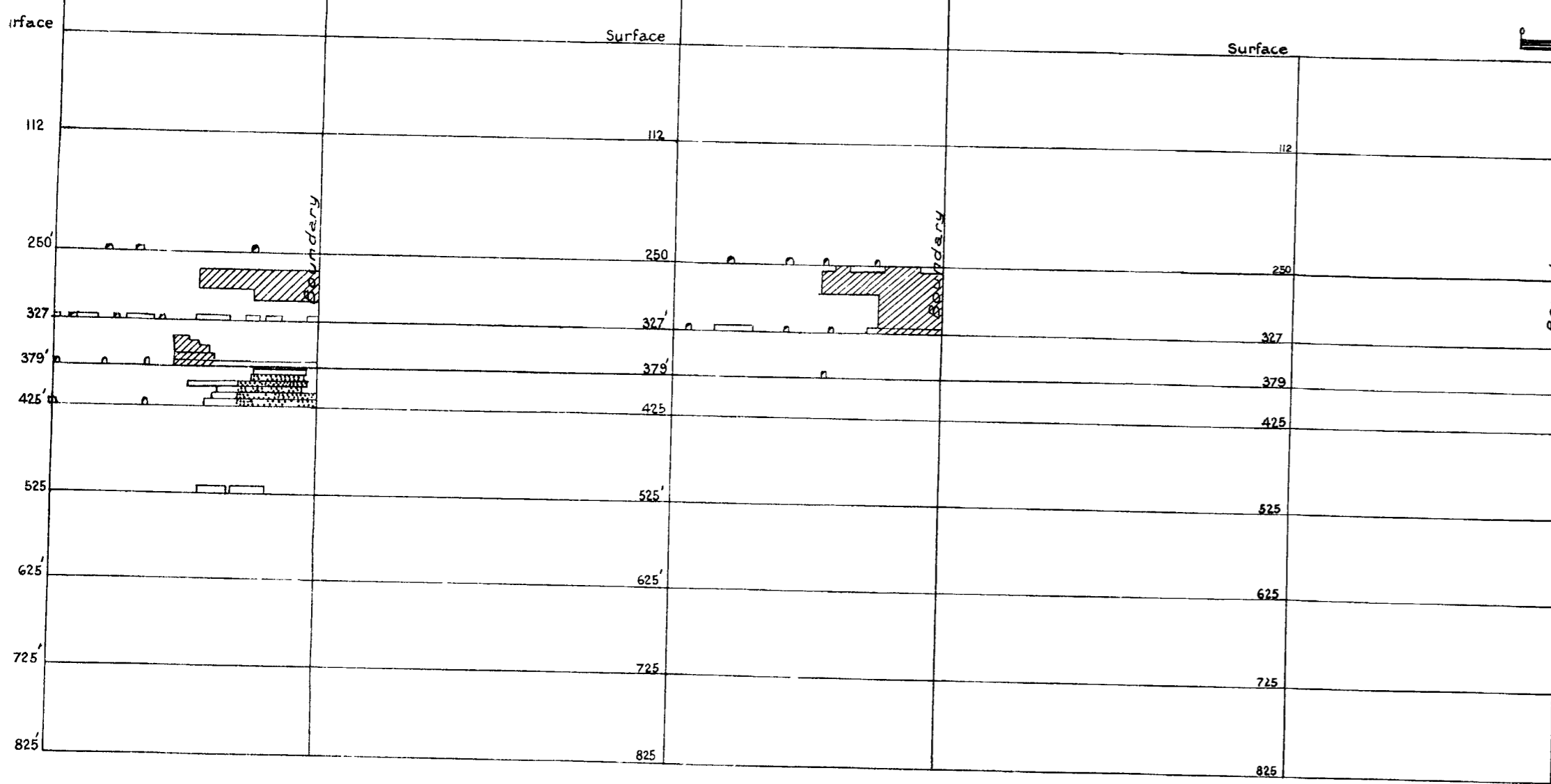
At D

At E

At F

LONGITUDINAL SECTIONS

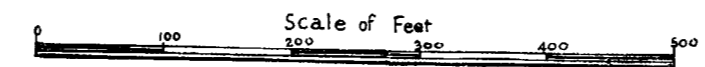
Looking North West



At Z

At Y

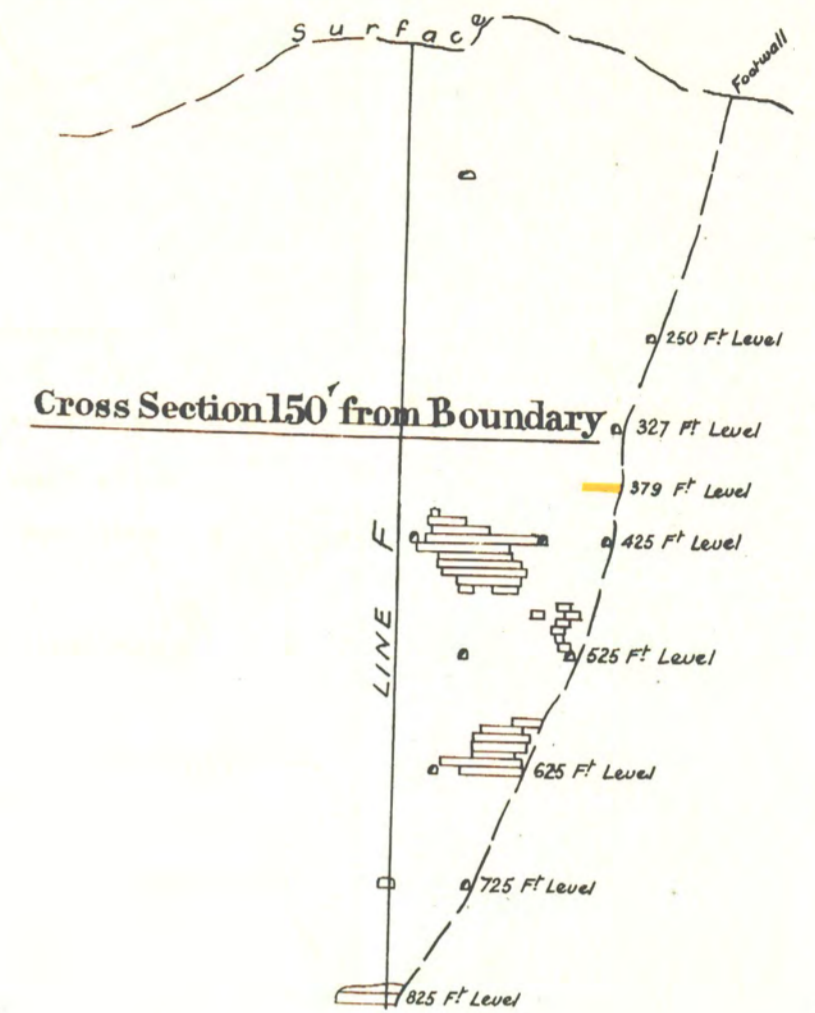
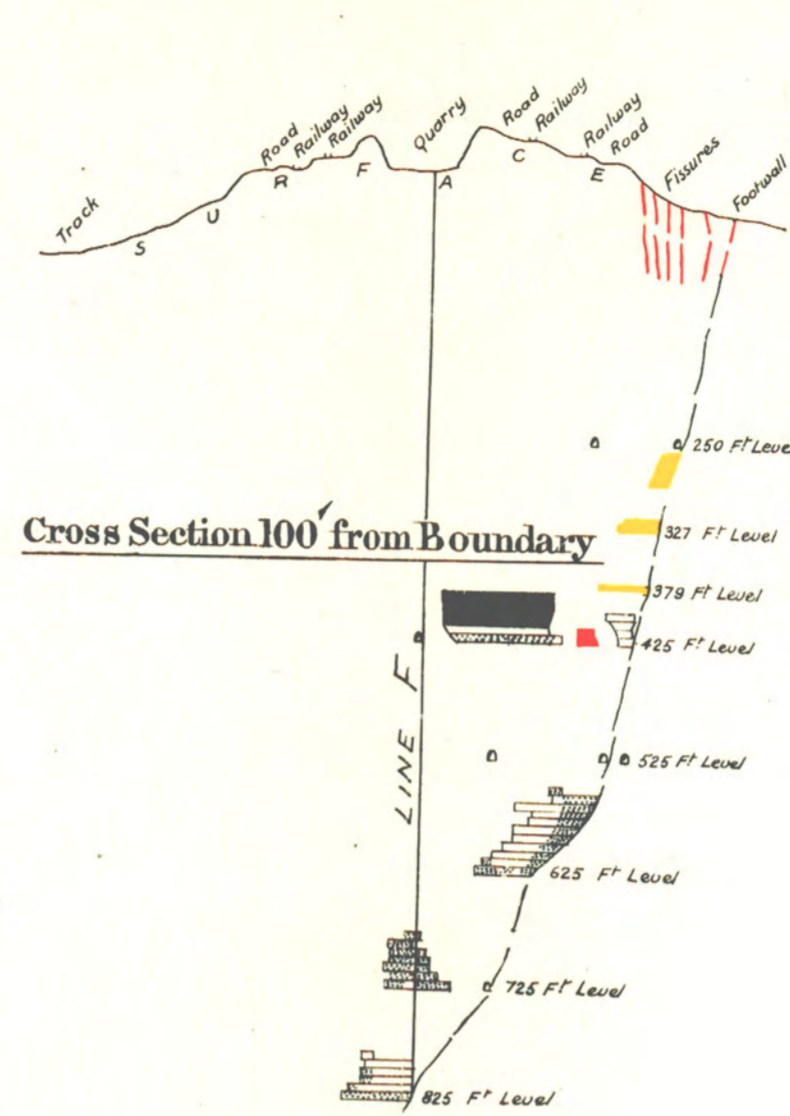
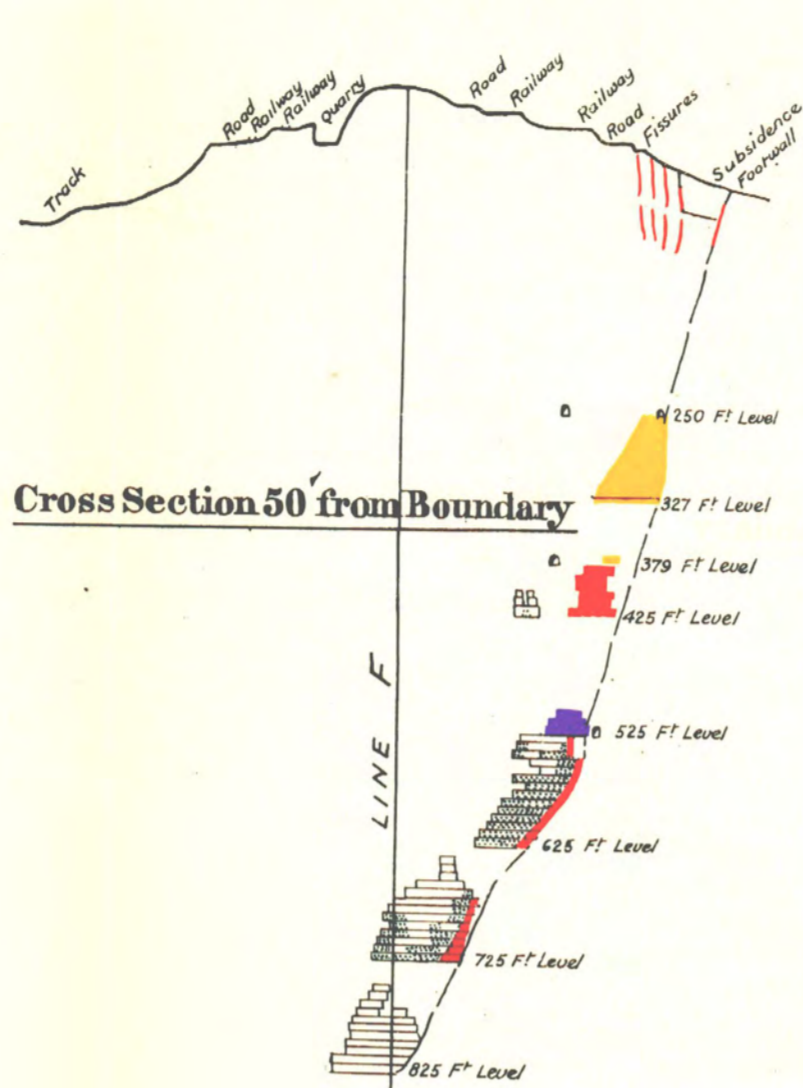
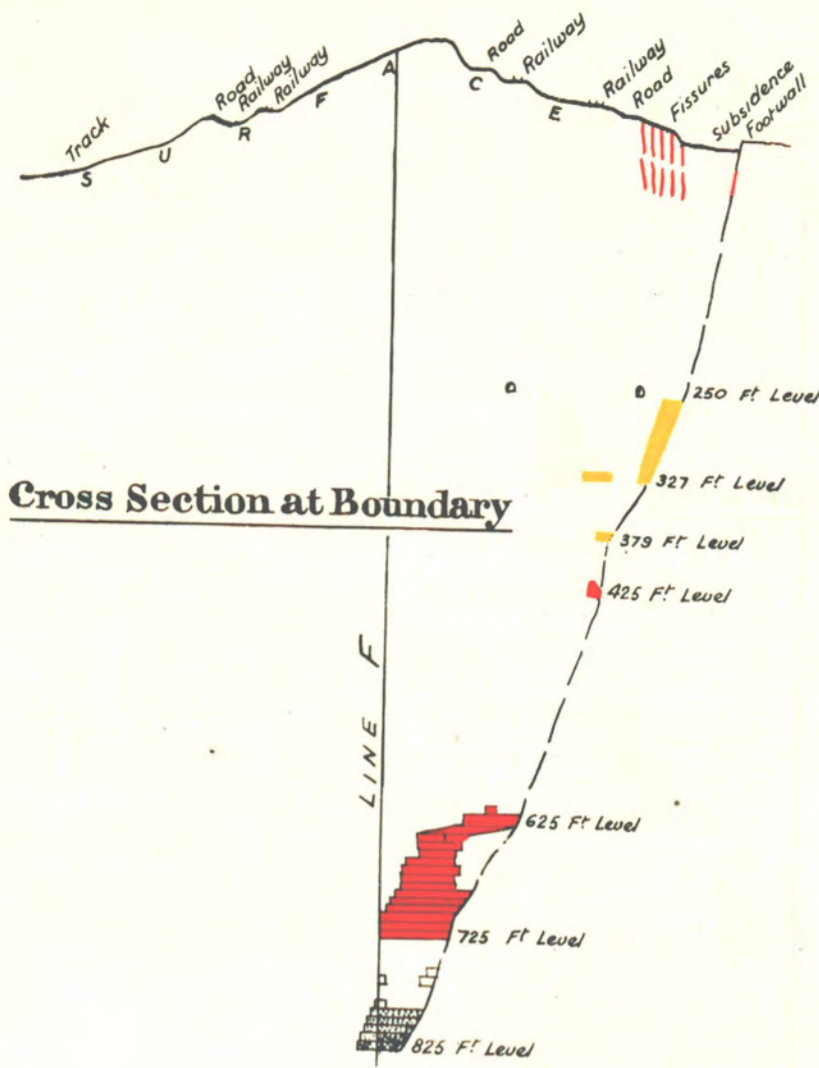
At X



Broken Hill South S.M. Co.

Longitudinal Sections showing all Mining & Filling for 300 from Boundary (all Levels)

Exhibit No 30
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL
 O Dumeath Cooper
 Secretary
 March 1903

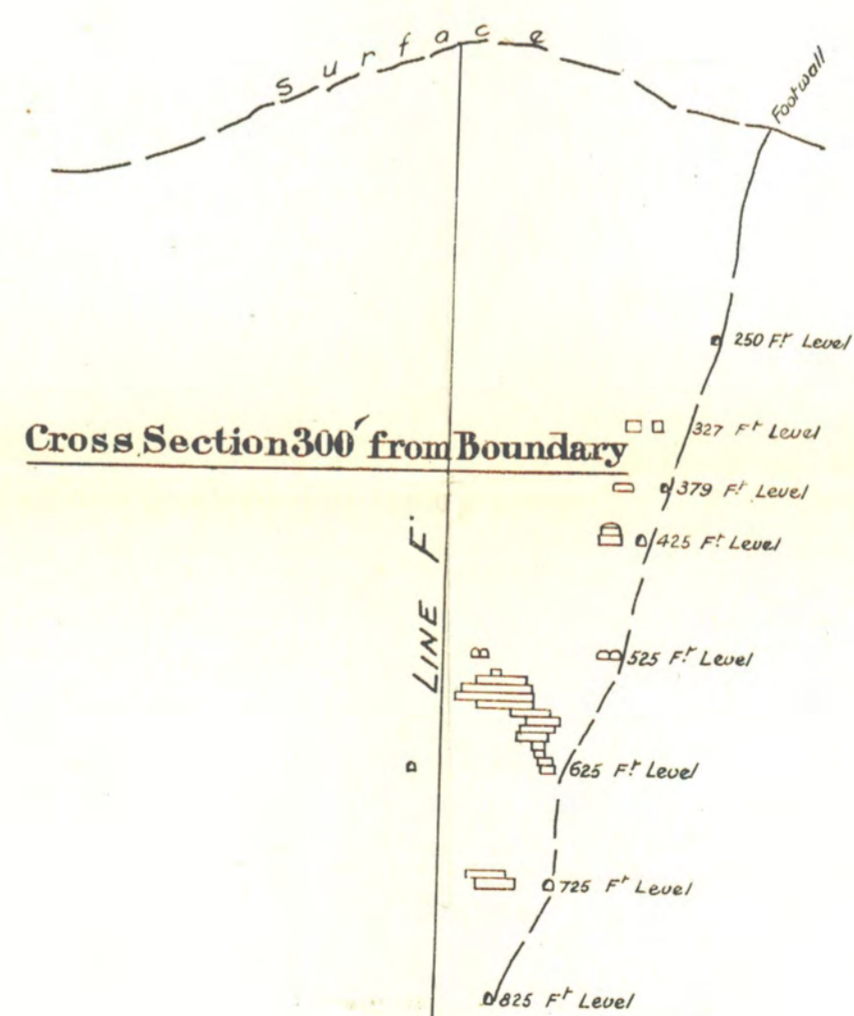
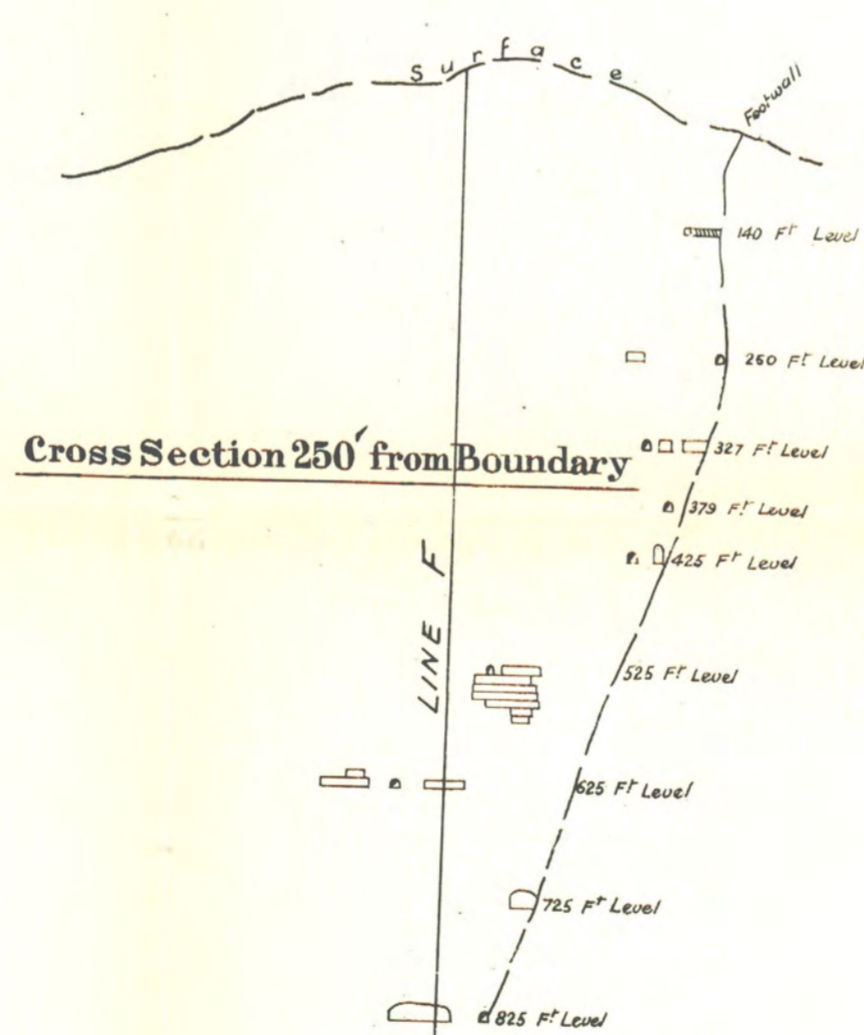
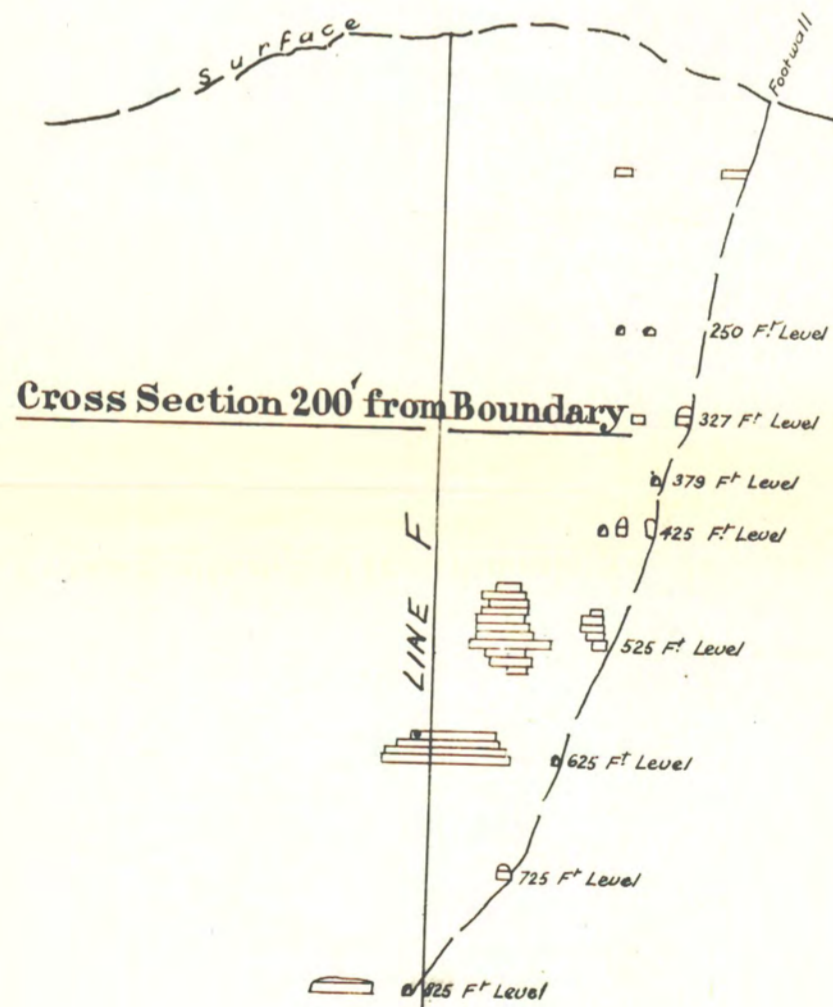


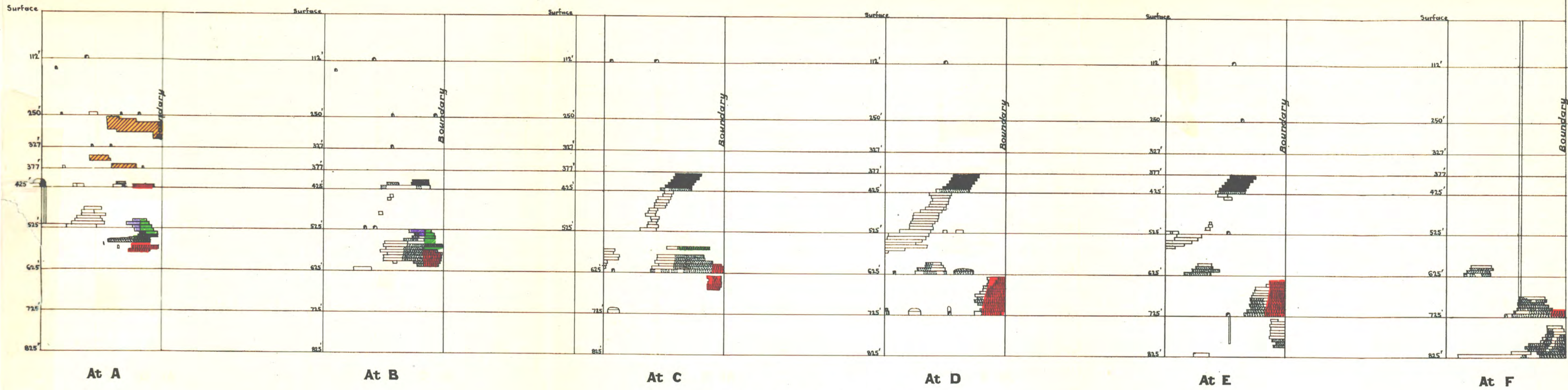
SOUTH MINE

Scale 166 FT to an Inch

Reference 1891 Creep shown Yellow
 1895 " " Black
 1901 (May) " " Violet
 1902 (June) " " Green
 1902 (October) " " Red

Exhibit No. 29
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL.
 O. Duménil Cooper,
 Secretary.
 March 25th, 1903.





LONGITUDINAL SECTIONS

Looking North West

Scale 192 Feet to an Inch

Albert W. Stöhr, Surveyor, 20th March 1903.

- Reference. 1891 Creep shewn Yellow
 1895 " " Black
 1901 (May) " " Violet
 1902 (June) " " Green
 1902 (October) " " Red

Exhibit No. 28.
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL.

O. Dumeath Cooper,
 Secretary.

March, 25th, 1903.

Broken Hill South S.M. Co.

Longitudinal Sections showing all Mining & Filling for 300' from Boundary (all Levels)

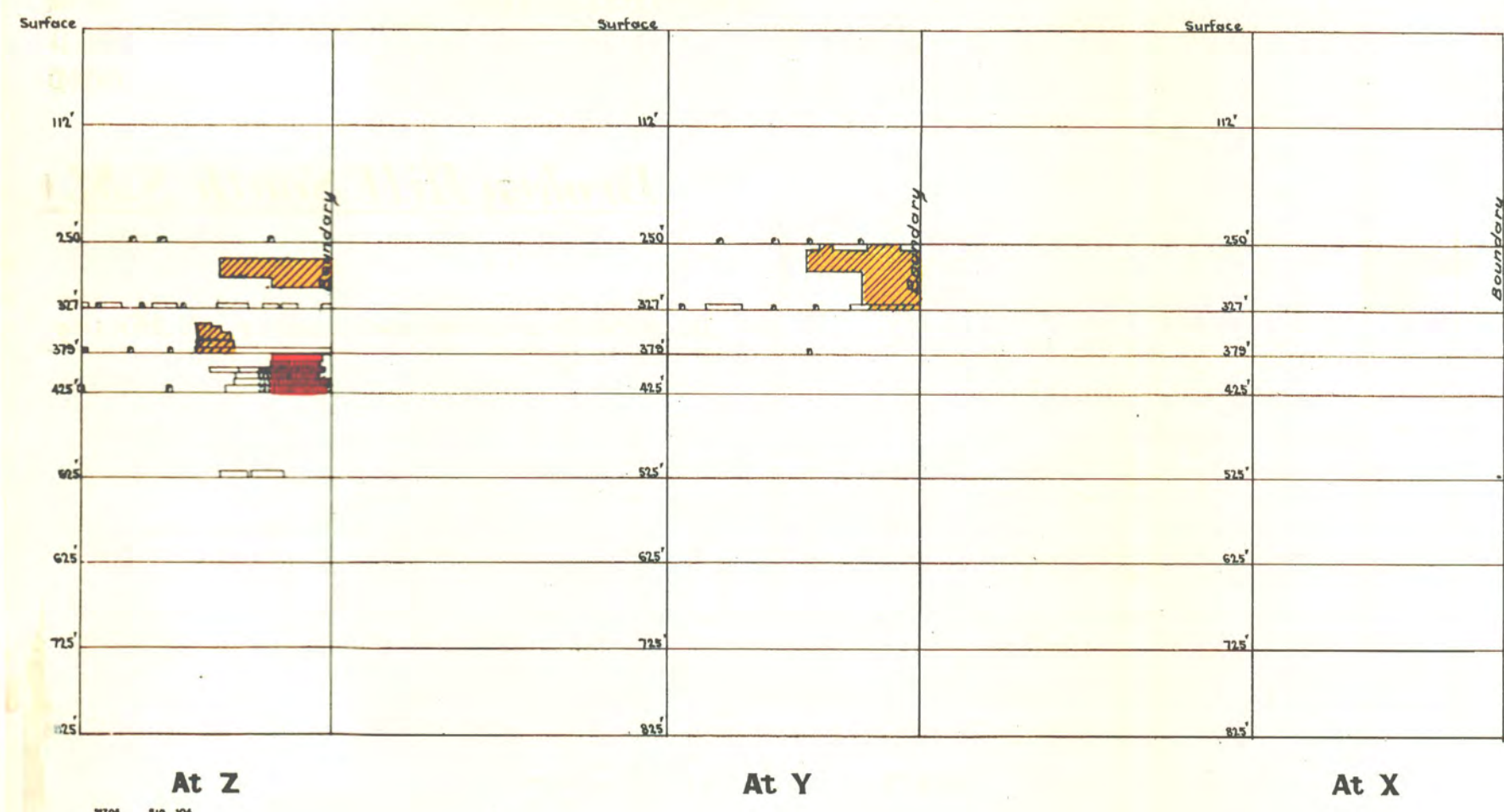


Photo-lithographed by
 W. A. Gullich, Government Printer,
 Sydney, N.S.W.

Exhibit No. 18.
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL.

O. Dumeath Cooper,
 Secretary.

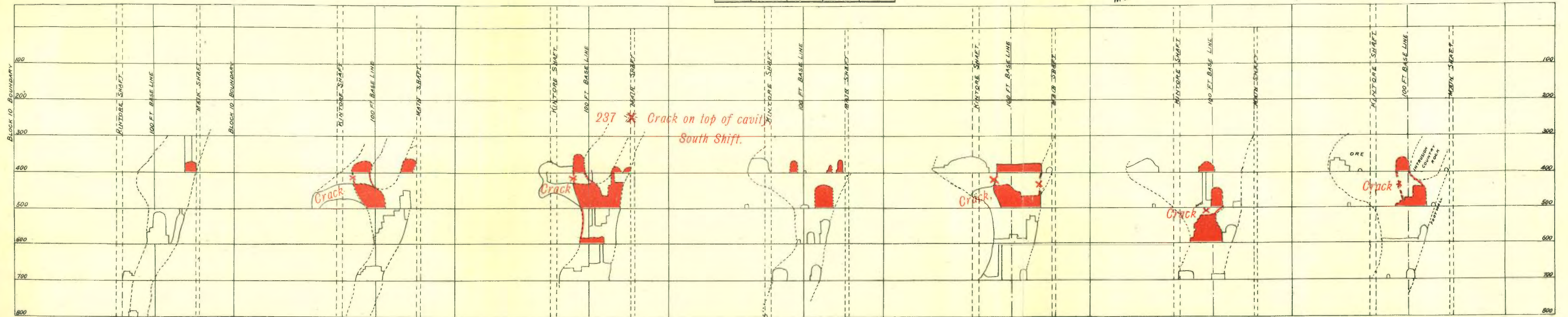
March 17th, 1903.

THE SULPHIDE CORPORATION LTD.

CENTRAL MINE

Cross Sections of Lodes

SCALE OF FEET
 0 100 200 300 400 500



Cross Section on South Boundary

Cross Section on South Side A⁴

Cross Section on South Side A³

Cross Section on Centre A³

Cross Section on South Side A²

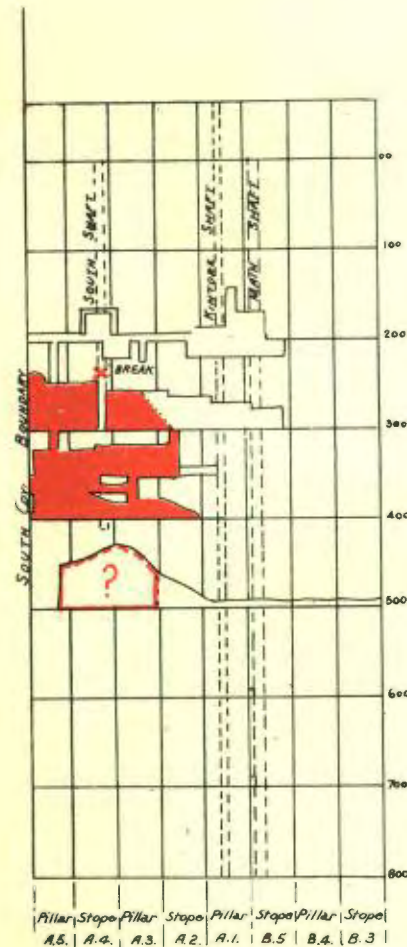
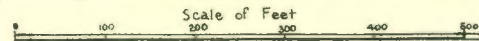
Cross Section on South Side A¹

Cross Section on Centre A²

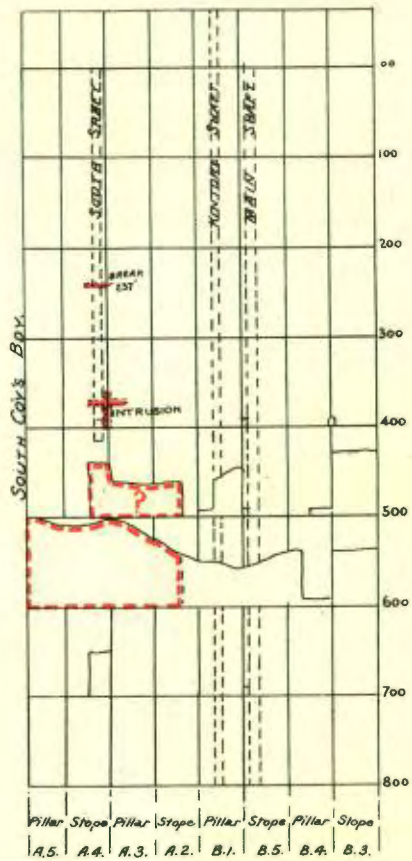
THE SULPHIDE CORPORATION LTD

CENTRAL MINE

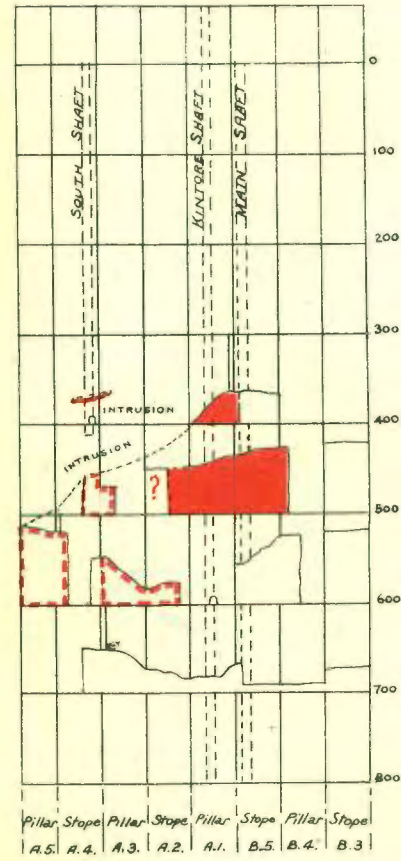
Longitudinal Sections. (Vertical)



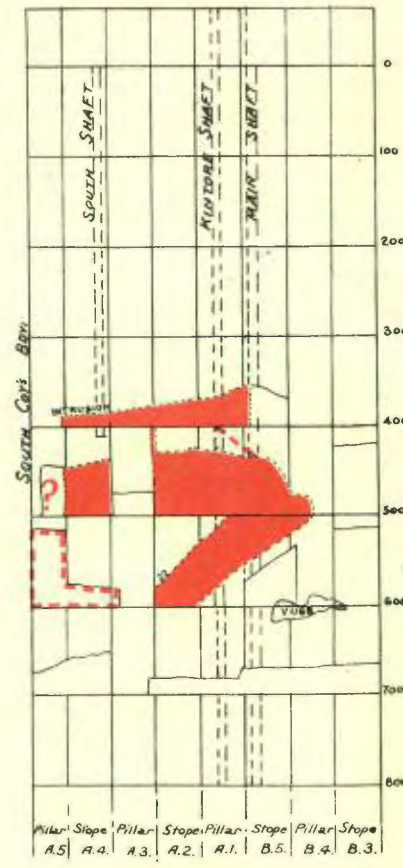
Longitudinal Section at A on plan.



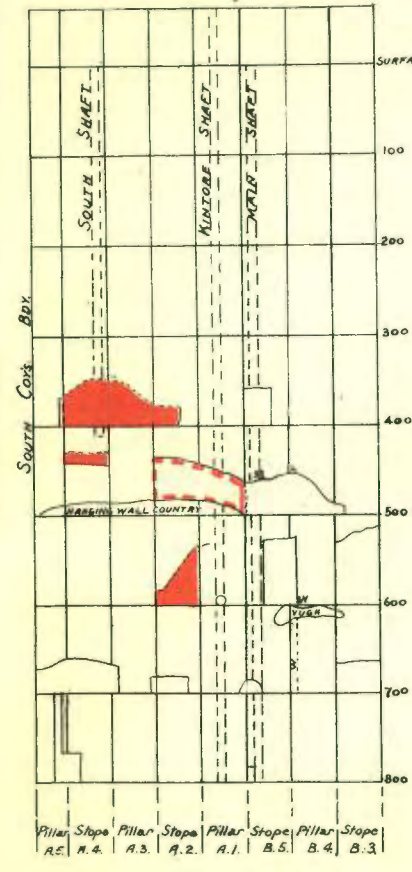
Longitudinal Section at B on plan.



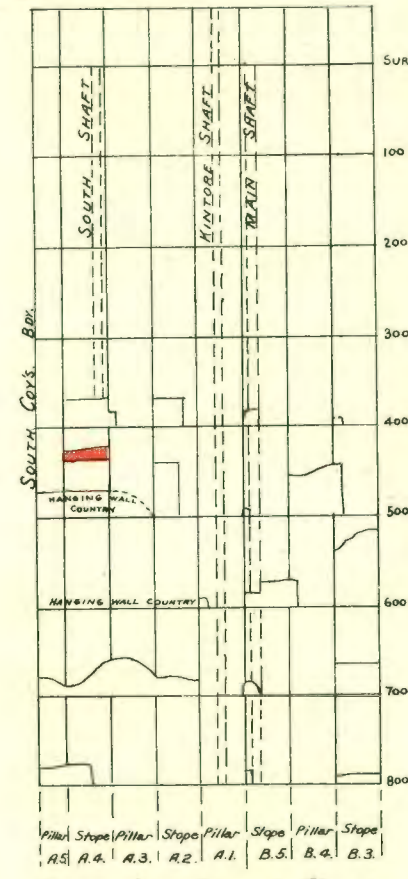
Longitudinal Section at C on plan.



Longitudinal Section at D on plan.



Longitudinal Section at E on plan.



Longitudinal Section at F on plan.

Exhibit No. 19.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.

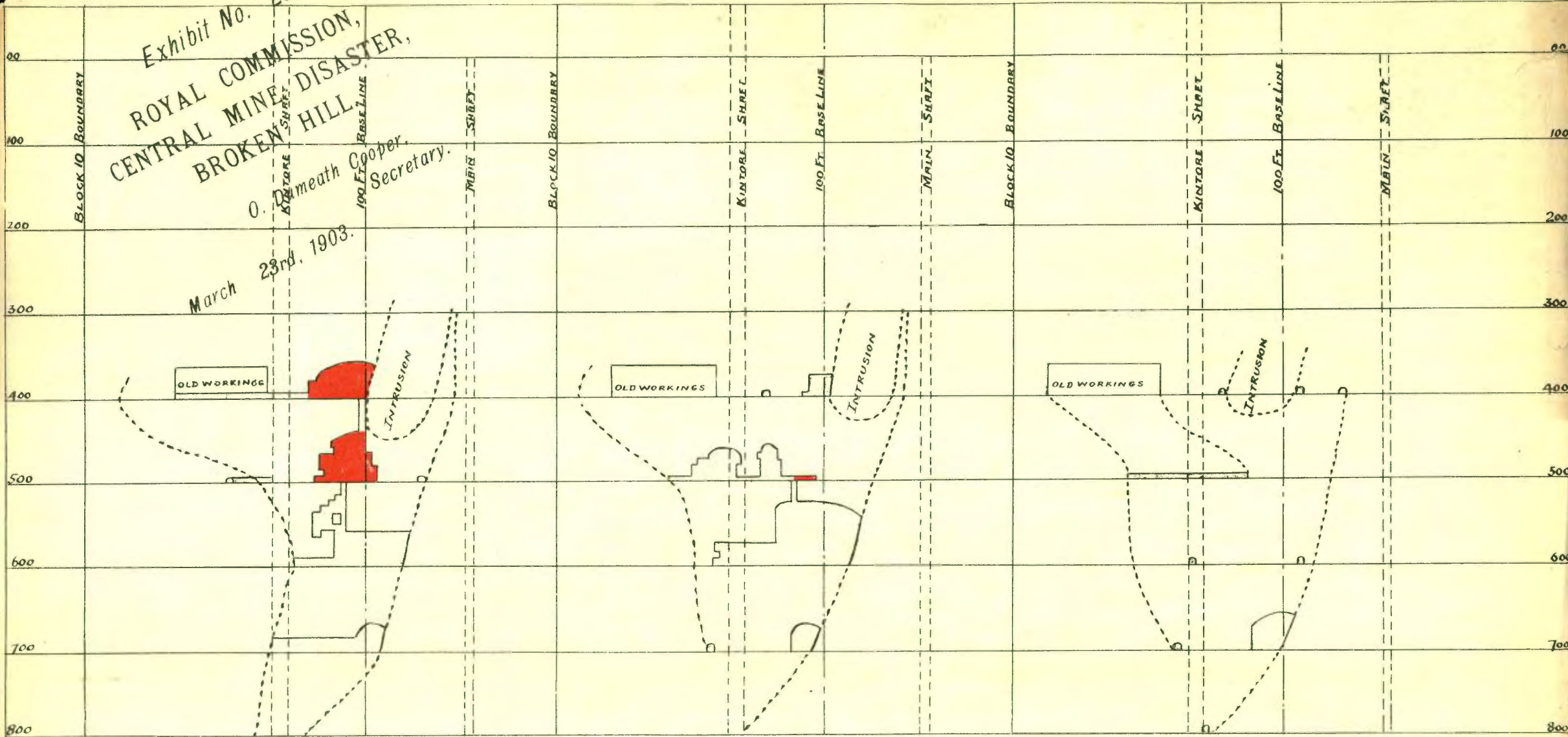
March 23rd, 1903.

Exhibit No. 20.

ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Deaneath Cooper,
Secretary.

March 23rd, 1903.



Cross Section on
South Side B⁵.

Cross Section on
South Side B⁴.

Cross Section on
Centre B⁴.

Photo-lithographed by
W. A. Gallick, Government Printer,
Sydney, N.S.W.

Ed. Beaumont C.S.
Surveyor
Central Mine
March 19th 1903

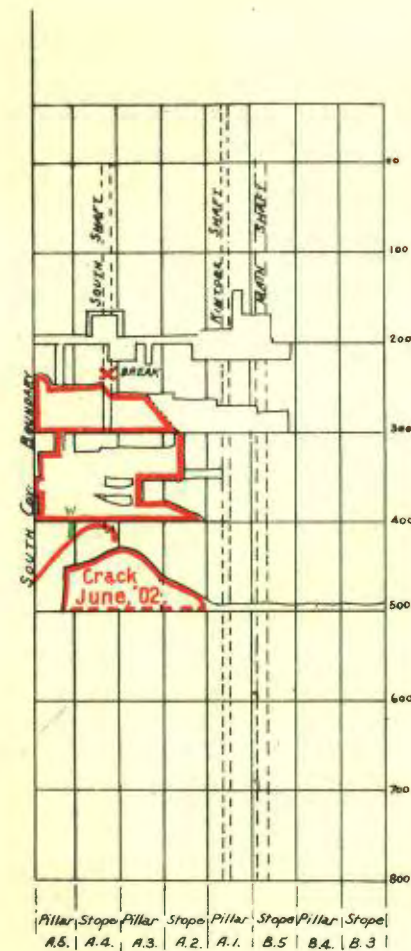
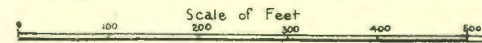
Cracks caused by June Creep shown in RED LINES.

Portion removed from Pillars A 3 shown in GREEN.

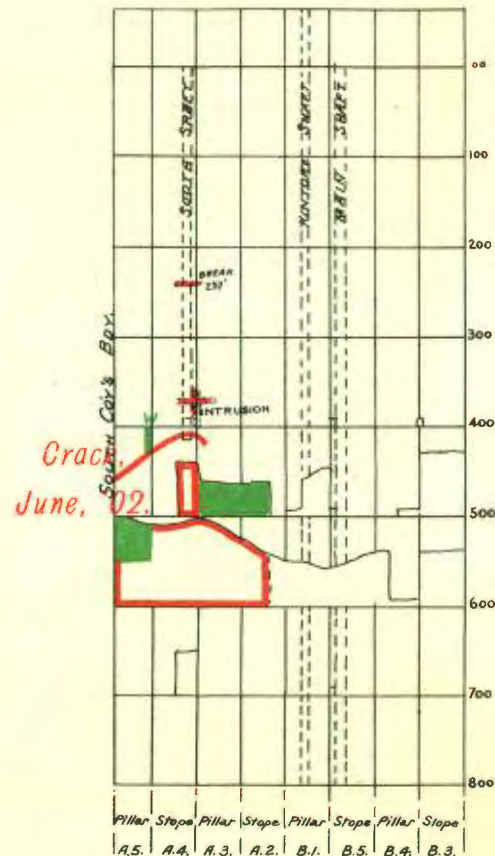
— THE SULPHIDE CORPORATION LTD. —

— CENTRAL MINE —

— Longitudinal Sections. — (Vertical)



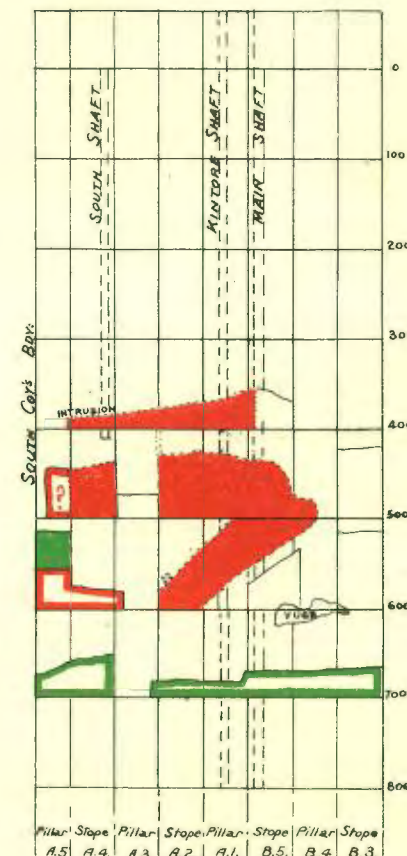
Longitudinal Section at A on plan.



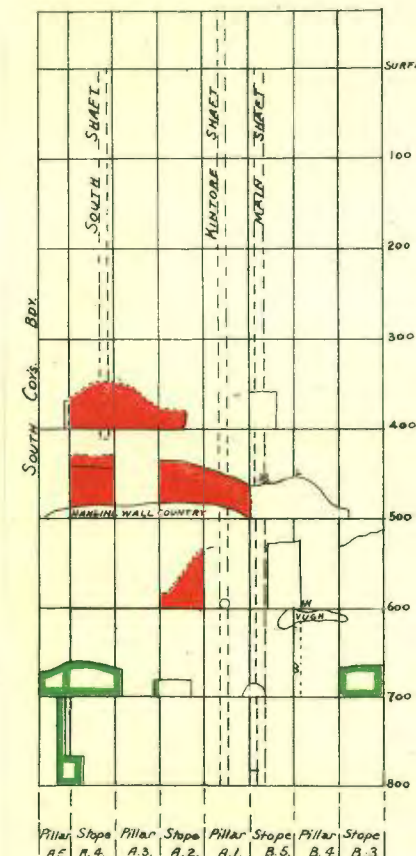
Longitudinal Section at B on plan.



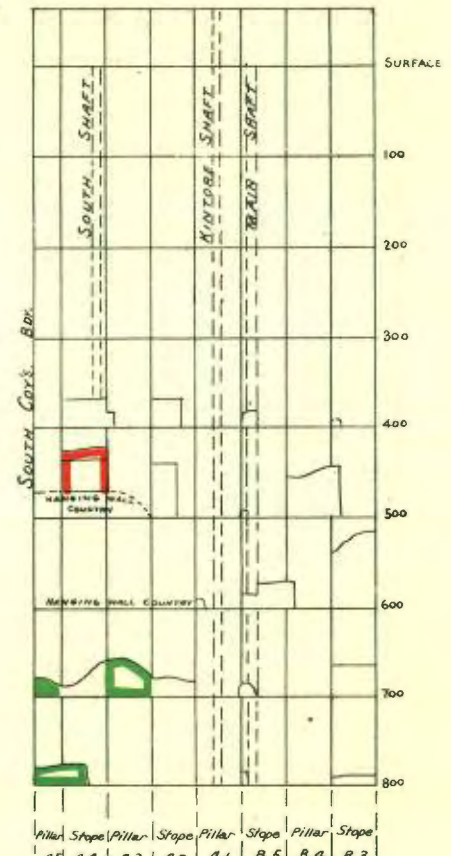
Longitudinal Section at C on plan.



Longitudinal Section at D on plan.



Longitudinal Section at E on plan.



Longitudinal Section at F on plan.

Exhibit No. 21.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.
O. Dumeath Cooper,
Secretary.

March 23rd, 1903.

Areas coloured Red are those affected by Creep, 1902 (Oct.)

.. .. Green are portions of Pillars and Slopes taken out since Jan., 1901.

M.L. 8

M.L. 8

SOUTH B.H.S.M.Co. N^o 8 LEVEL

SCALE OF FEET
A.W. Shippy, Surveyor in the Co.

Block VII Boundary

Block VIII Boundary

M.L. 7

Block VII Boundary

VII

VI

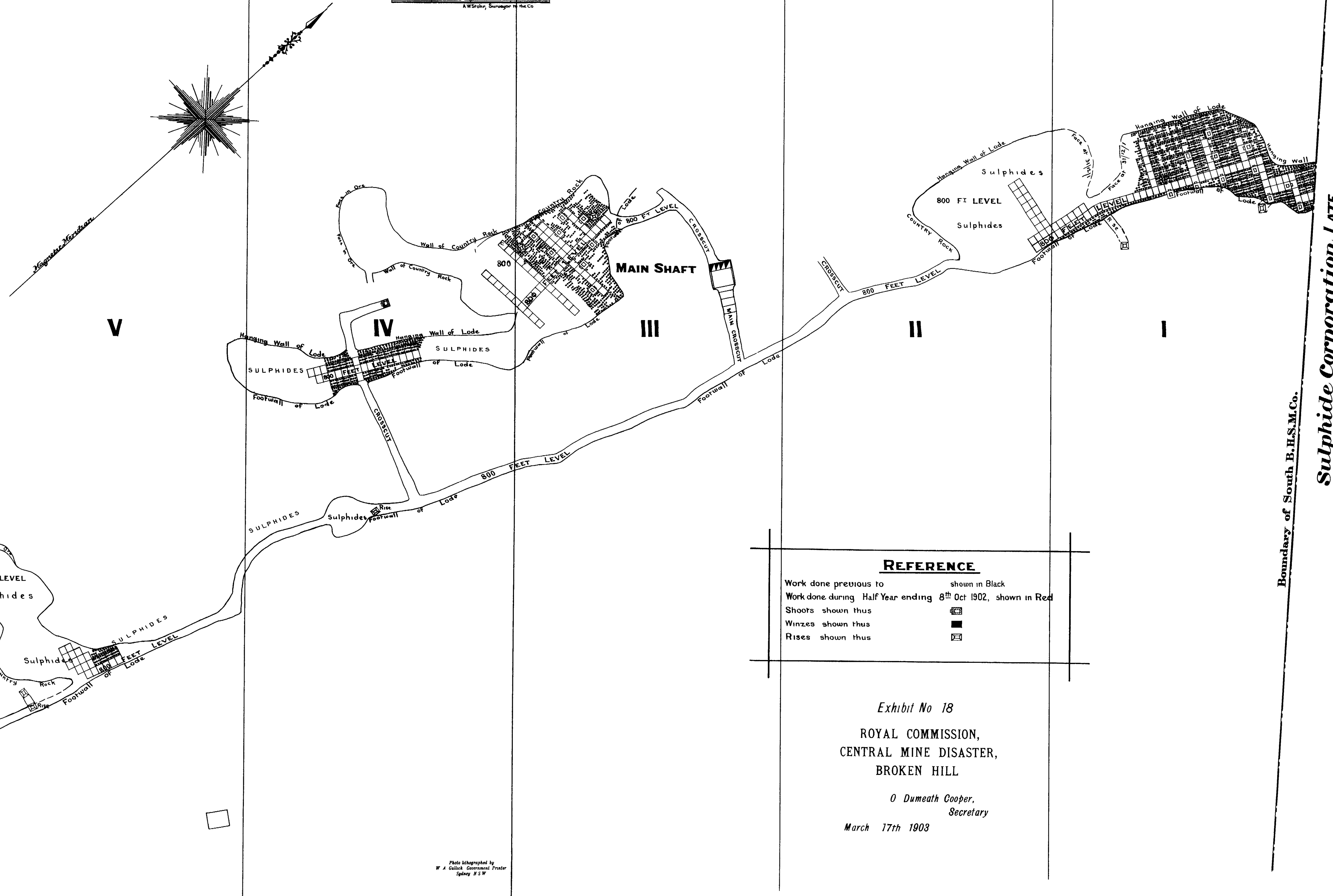
V

IV

III

II

I

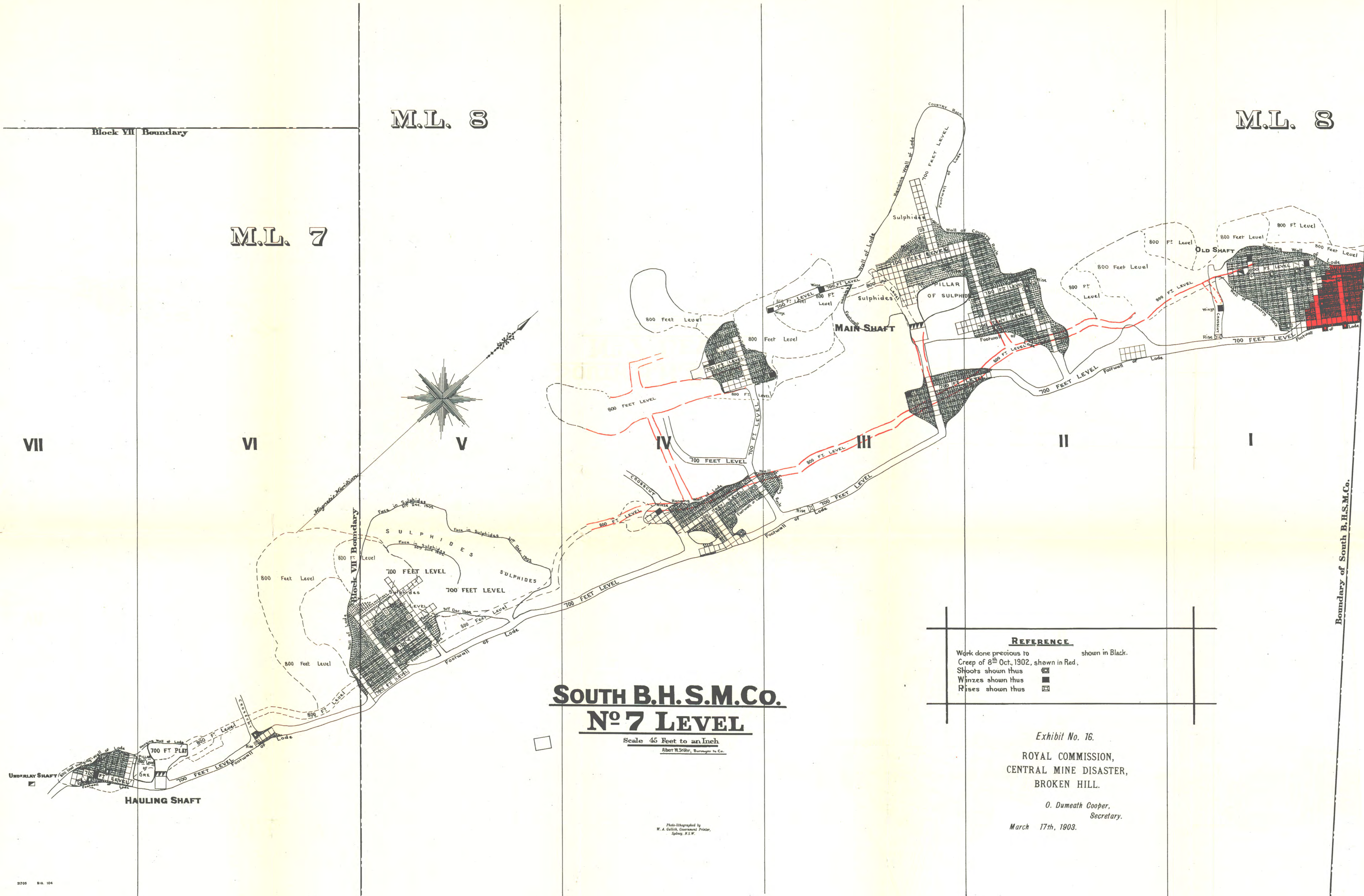


REFERENCE	
Work done previous to	shown in Black
Work done during Half Year ending 8 th Oct 1902,	shown in Red
Shoots shown thus	
Winzes shown thus	
Rises shown thus	

Exhibit No 18
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL
 O Dumeath Cooper,
 Secretary
 March 17th 1903

Boundary of South B.H.S.M.Co.

Sulphide Corporation L^{td}
Central Broken Hill Silver Mining Company M.L. 9



M.L. 8

M.L. 8

M.L. 7

M.L. 9

VII

VI

V

IV

III

II

I

SOUTH B.H.S.M.CO.
No. 7 LEVEL

Scale 45 Feet to an Inch
 Albert W. Spahr, Surveyor in Charge

REFERENCE

Work done previous to Creep of 8th Oct, 1902, shown in Black.
 Shoots shown thus [Symbol]
 Winzes shown thus [Symbol]
 Rises shown thus [Symbol]

Exhibit No. 16.
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL.

O. Dumeath Cooper,
 Secretary.
 March 17th, 1903.

Boundary of South B.H.S.M.Co.

Sulphide Corporation LATE
Central Broken Hill Silver Mining Company

Exhibit No 14
 ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL

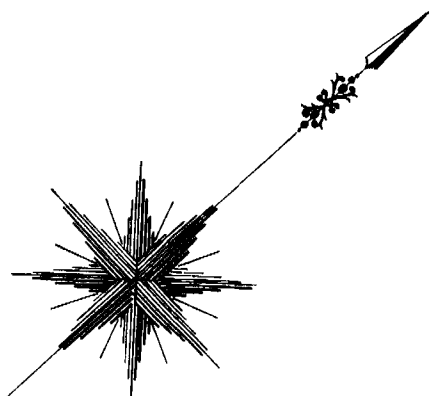
O Dumeath Cooper,
 Secretary
 March 17th, 1903

M.L. 8

M.L. 8

South B.H.S.M.Co.
No 5 LEVEL.

SCALE OF FEET
 0 10 20 30 40 50 60 70 80 90 100



Block VII Boundary

M.L. 7

Block VII Boundary

VII

VI

V

IV

III

II

I

HAULING SHAFT

New Shaft

MAIN-SHAFT

Old Mullock Pass

Mullock Pass

REFERENCE

Work done previous to	shewn in Black
Creep of 8 th October 1902	shewn in Red
Shoots shewn thus	⊠
Winzes shewn thus	■
Rises shewn thus	□

Boundary of South B.H.S.M.Co.

M.L. 9

Sulphide Corporation LATE
 Central Broken Hill Silver-Mining Company

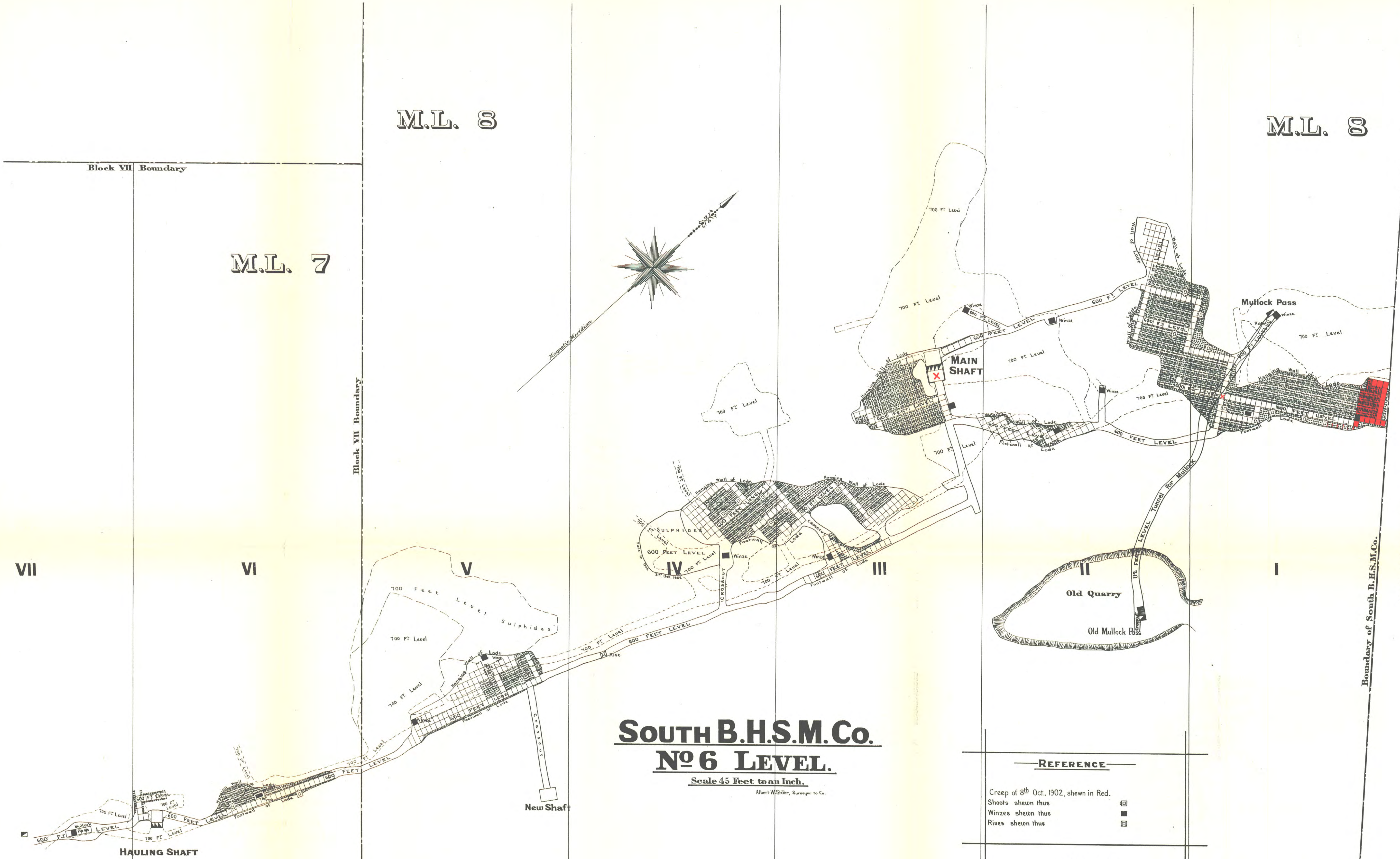
M.L. 8

M.L. 8

M.L. 7

M.L. 9

Sulphide Corporation LATE
Central Broken Hill Silver Mining Company



South B.H.S.M. Co.
No 6 LEVEL.

Scale 45 Feet to an Inch.
 Albert W. Strick, Surveyor to Co.

Photo-Engraved by
 W. A. Gullik, Government Printer,
 Sydney, N.S.W.

REFERENCE




Creep of 8th Oct., 1902, shown in Red.
 Shoots shown thus 
 Winzes shown thus 
 Rises shown thus 

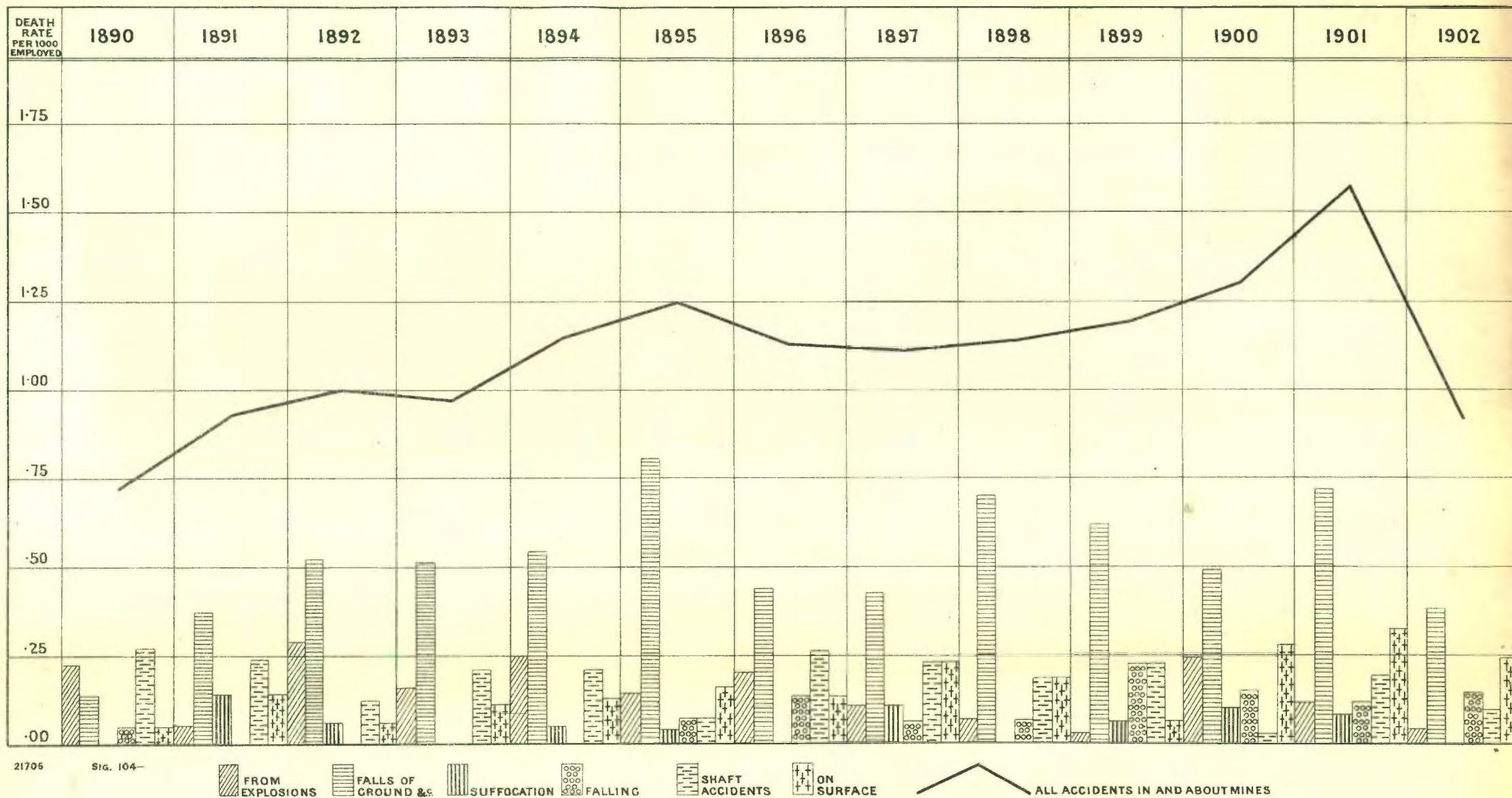
Exhibit No. 15.

ROYAL COMMISSION,
 CENTRAL MINE DISASTER,
 BROKEN HILL.

O. Dumeath Cooper,
 Secretary.

March 17th, 1903.

Death Rates from Accidents in and about Metalliferous Mines from 1890 to 1902



21706 Sig. 104-

FROM EXPLOSIONS
 FALLS OF GROUND &c.
 SUFFOCATION
 FALLING
 SHAFT ACCIDENTS
 ON SURFACE
 ALL ACCIDENTS IN AND ABOUT MINES

Photo-lithographed by
W. A. Gullick, Government Printer,
Sydney, N.S.W.

Block VII Boundary

M.L. 8

M.L. 7

Block VII Boundary

Exhibit No. 13.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.
March 17th, 1903.

M.L. 8

M.L.

VII

VI

V

IV

III

II

I

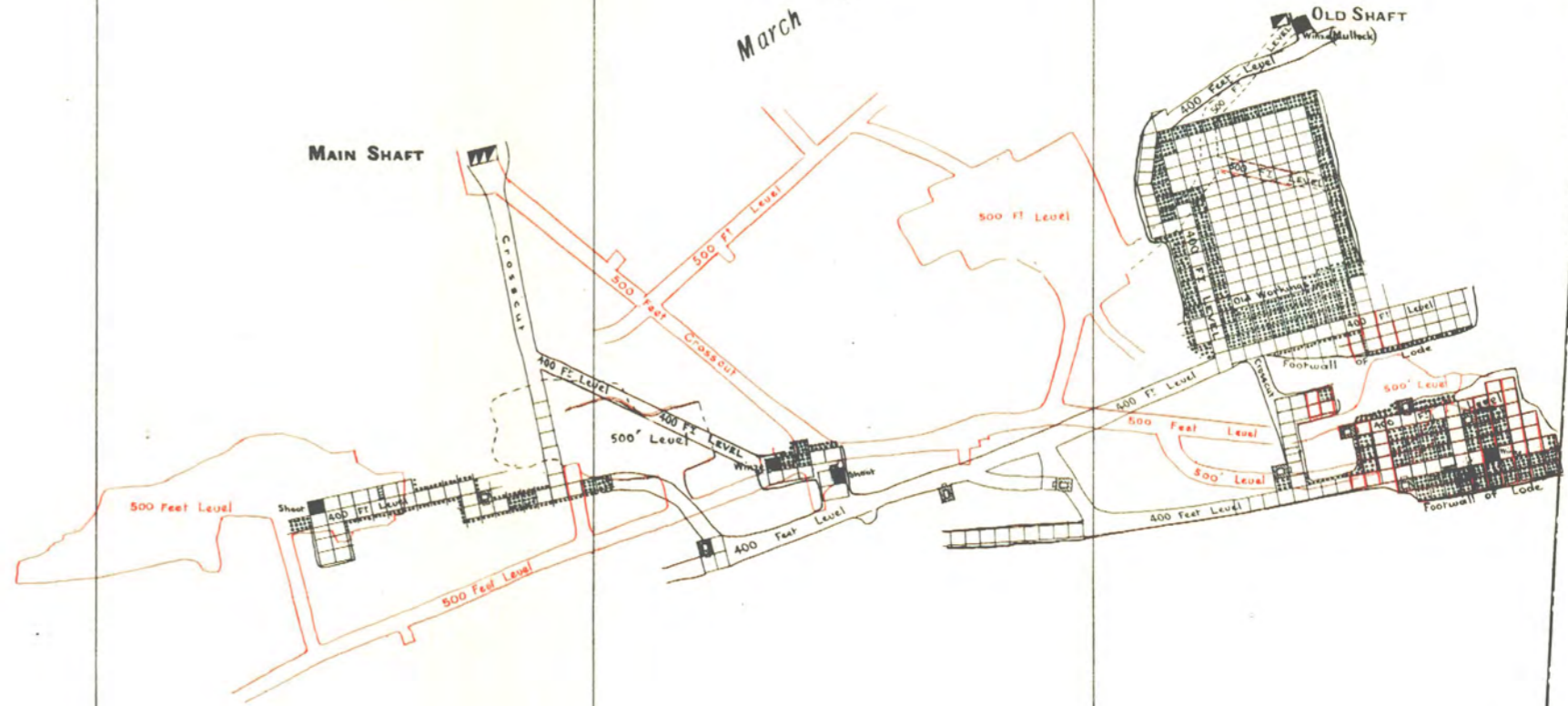
UNDERLAY SHAFT

HAULING SHAFT




SOUTH B. H. S. M. Co. No 4 LEVEL

Scale 70 Feet to an Inch

A. W. Stebbins, Surveyor to the Co.



REFERENCE

Creep of 8th Oct. 1902, shown in Red.
 Shoots shown thus 
 Winzes shown thus 
 Rises shown thus 

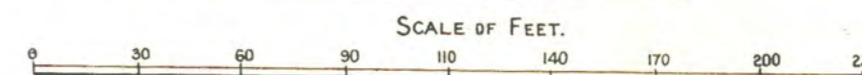
Central Broken Hill Silver Mining Company

Boundary of South B. H. S. M. Co.

BROKEN HILL CENTRAL S.M.

PLAN OF UNDERGROUND WORKINGS

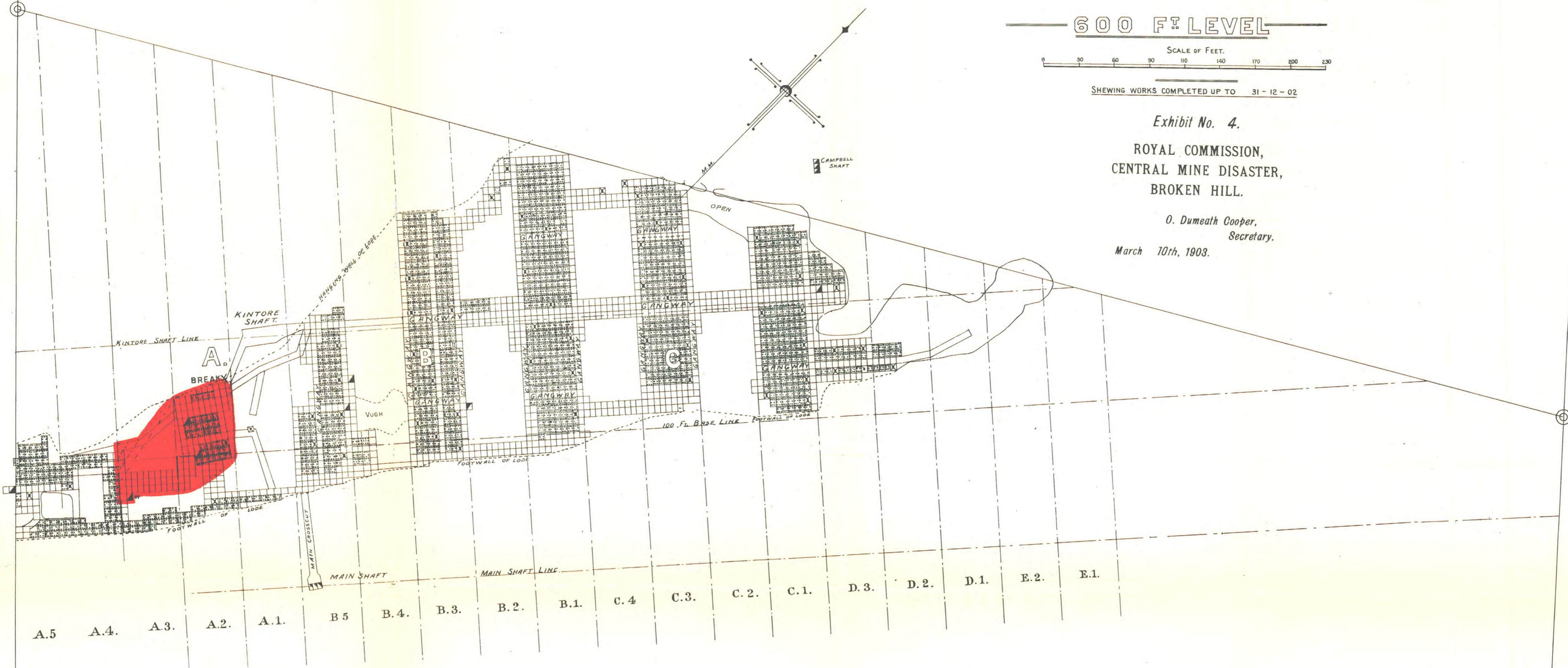
600 FT LEVEL



SHOWING WORKS COMPLETED UP TO 31-12-02

Exhibit No. 4.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

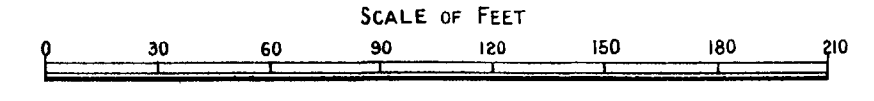
O. Dumeath Cooper,
Secretary.
March 10th, 1903.



BROKEN HILL CENTRAL S.M.

PLAN OF UNDERGROUND WORKINGS,

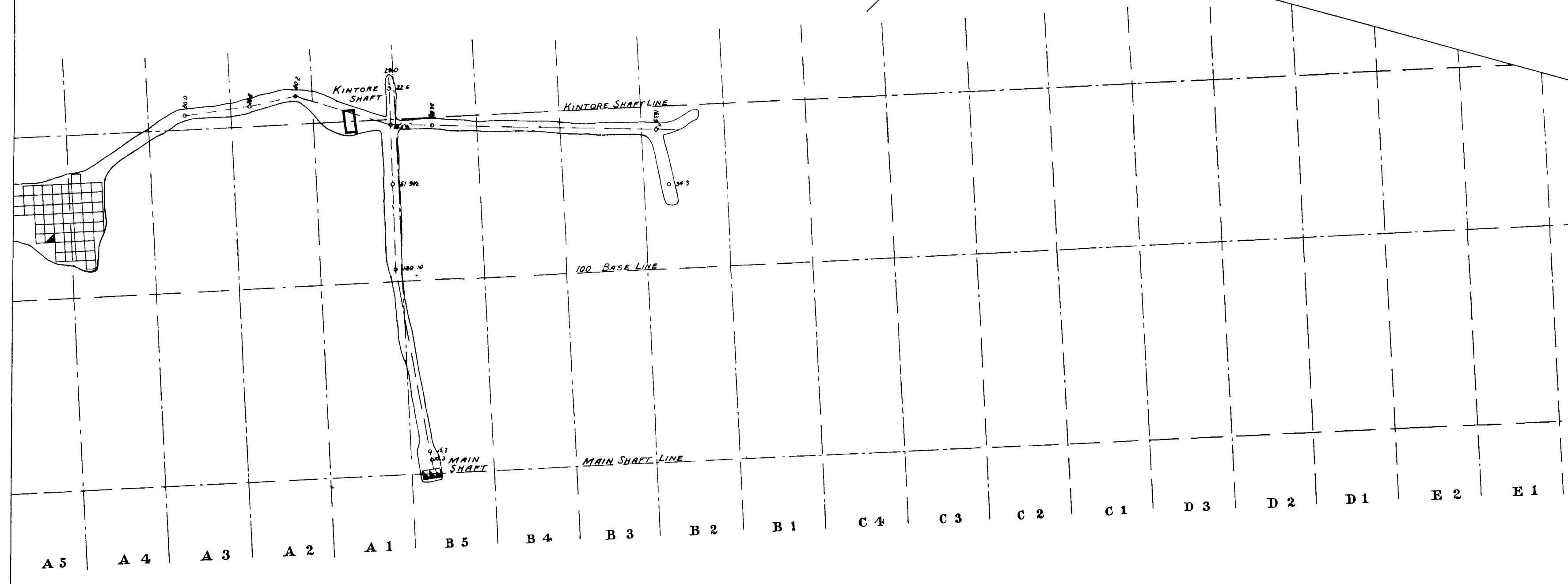
800 FT LEVEL



SHOWING WORK COMPLETED UP TO 31-12-02

Exhibit No 6
ROYAL COMMISSION
CENTRAL MINE DISASTER
BROKEN HILL
G Dumestree Cooper
Secretary
March 10th, 1903

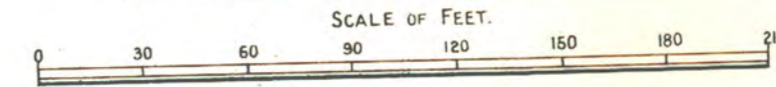
CAMPBELL
SHAFT



BROKEN HILL CENTRAL S.M.

PLAN OF UNDERGROUND WORKINGS,

500 FT LEVEL



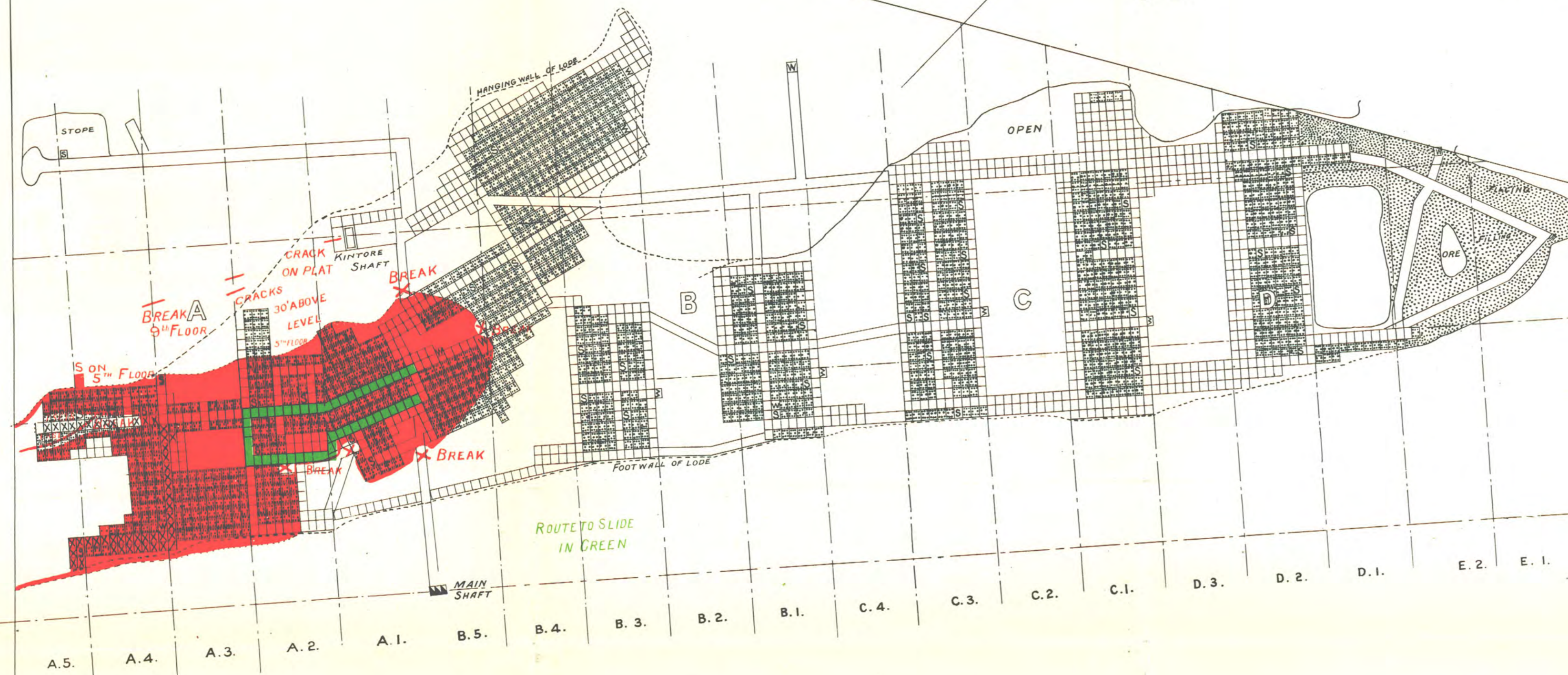
SHewing works completed up to 31-12-02.

Exhibit No. 3.

ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.

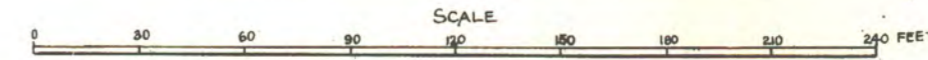
March 10th, 1903.



BROKEN HILL CENTRAL S.M.

PLAN OF UNDERGROUND WORKINGS

400 FT LEVEL



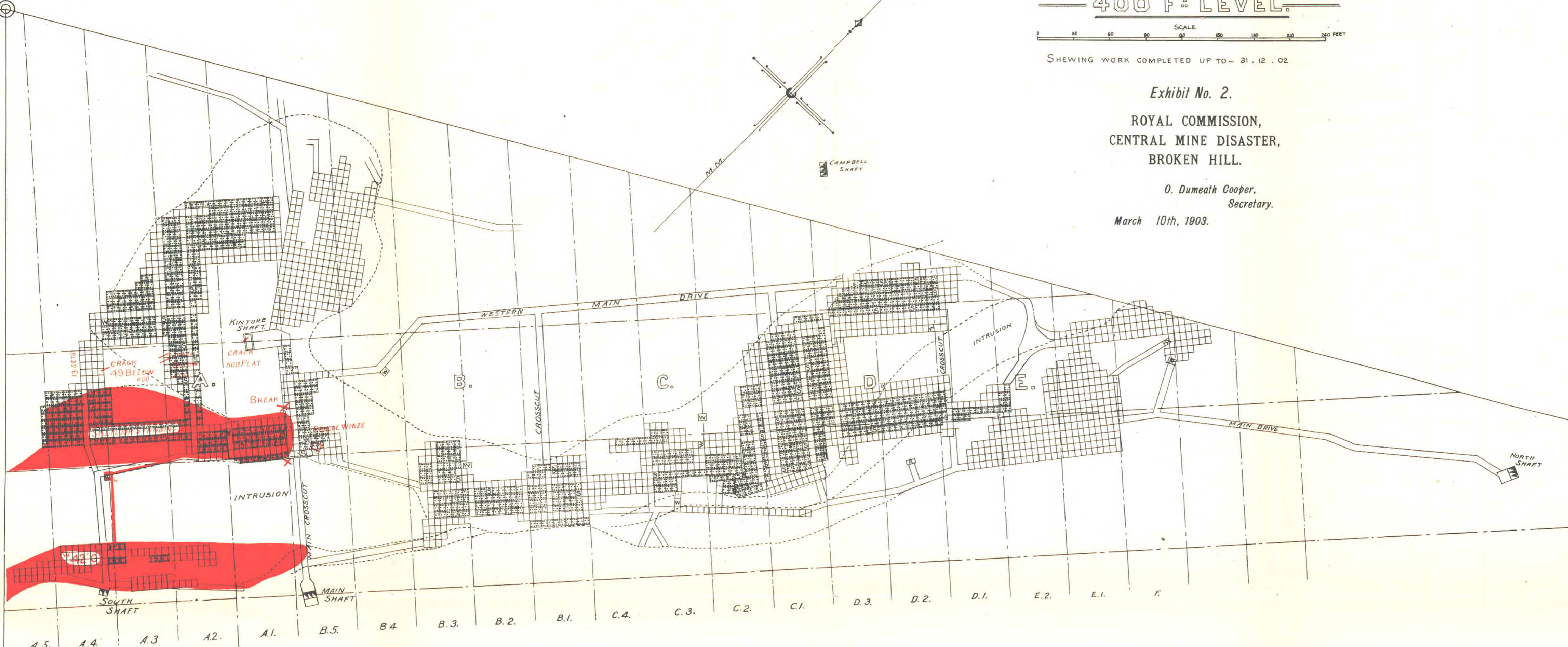
SHewing work completed up to - 31.12.02

Exhibit No. 2.

ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.

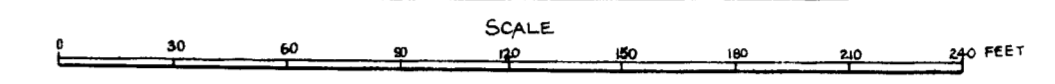
March 10th, 1903.



BROKEN HILL CENTRAL S.M.

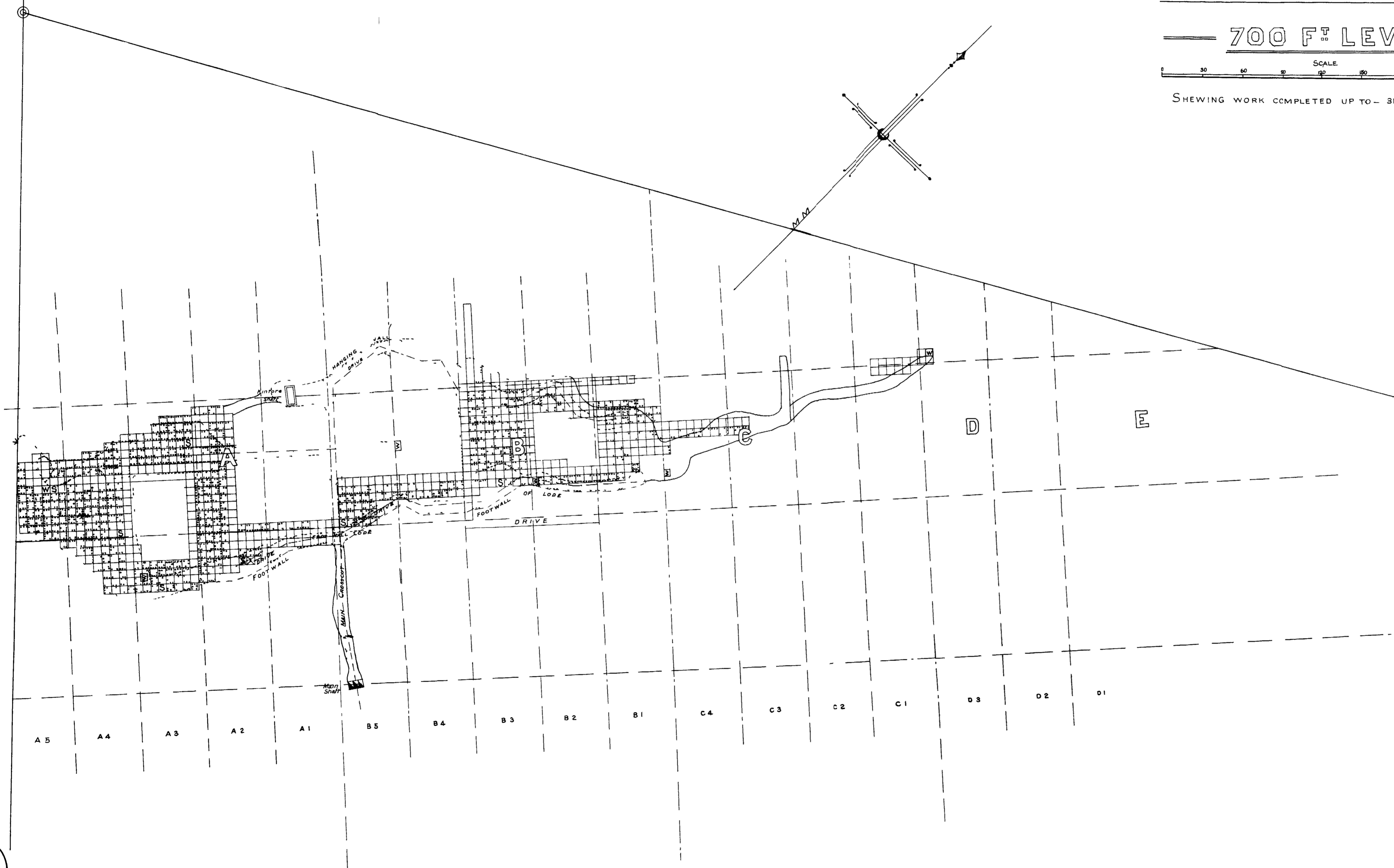
PLAN OF UNDERGROUND WORKINGS

700 F^t LEVEL.



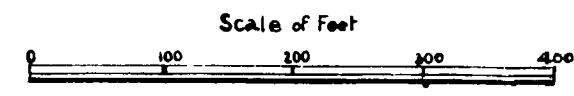
SHOWING WORK COMPLETED UP TO - 31 12 02

Exhibit No 5
ROYAL COMMISSION
CENTRAL MINE DISASTER
BROKEN HILL
O Dumeath Cooper
Secretary
March 10th 1903



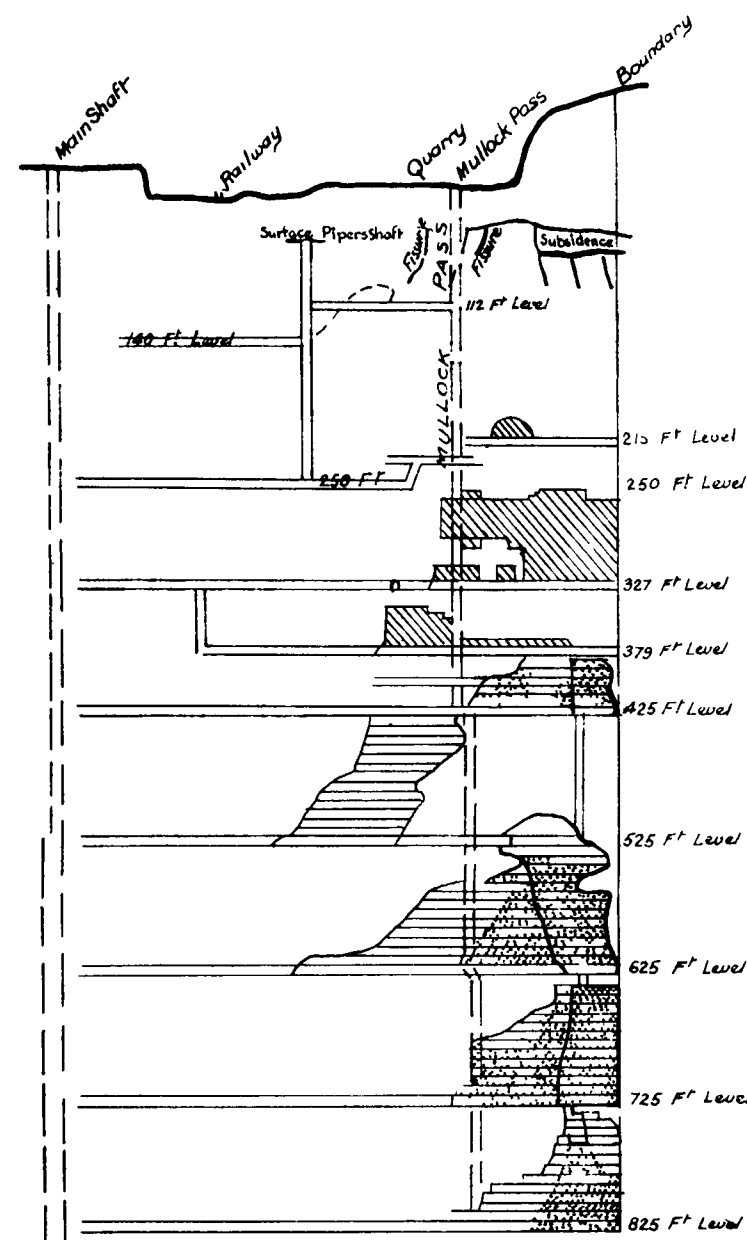
B.H. SOUTH S.M. Co.

Sections & Plan of Underground Workings near Central Boundary

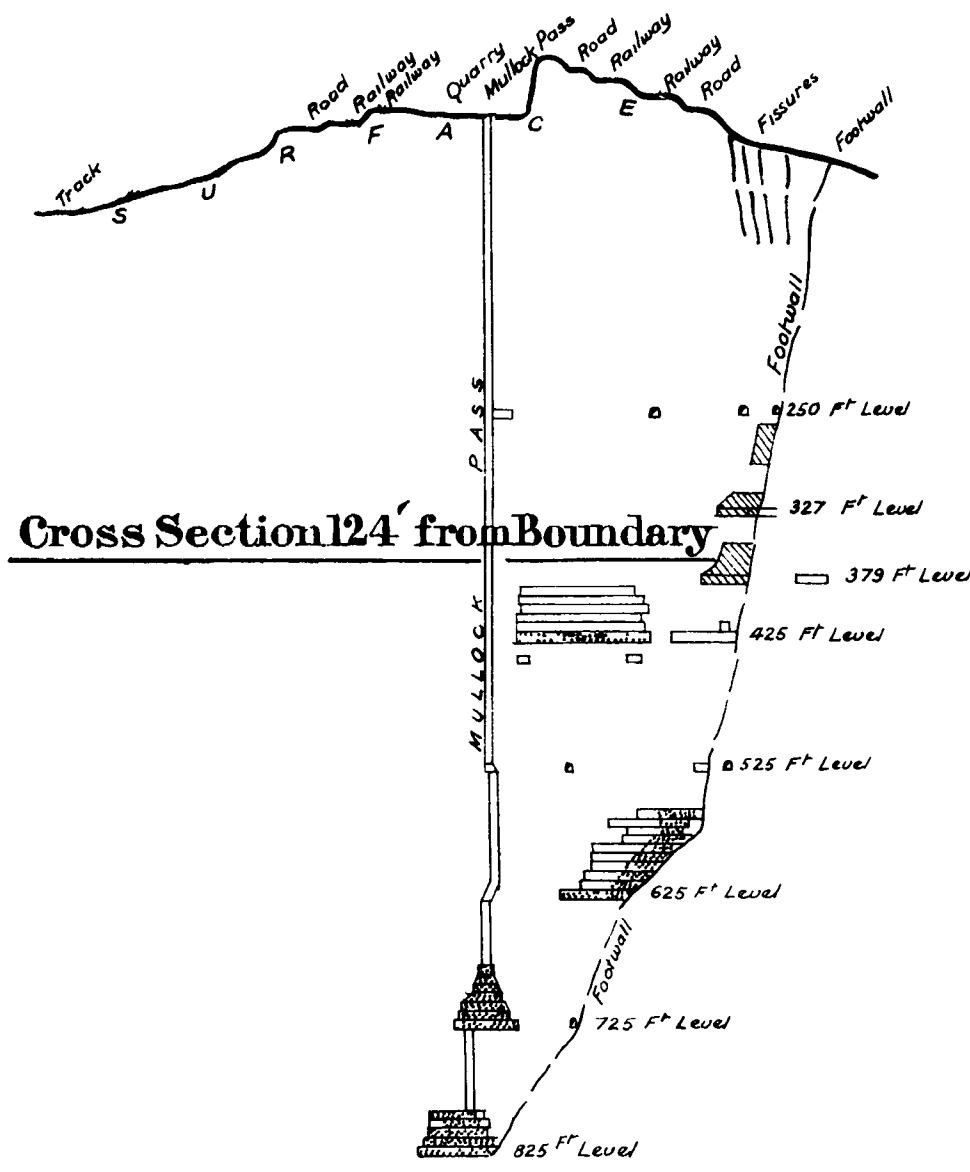


Part affected by Creep of October 1902 shewn in Red

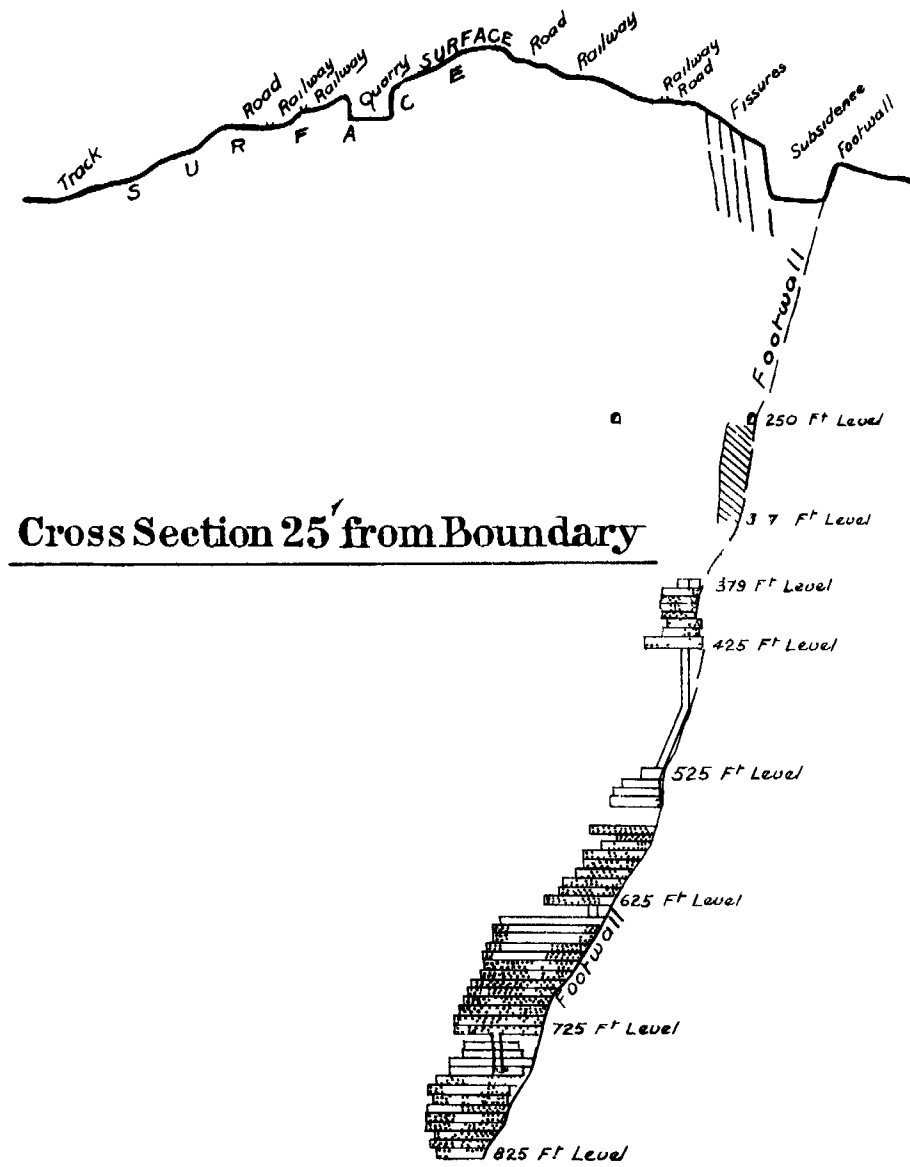
Exhibit No 32A
ROYAL COMMISSION
CENTRAL MINE DISASTER
BROKEN HILL
O Demeath Cooper Secretary
March 27th 1903



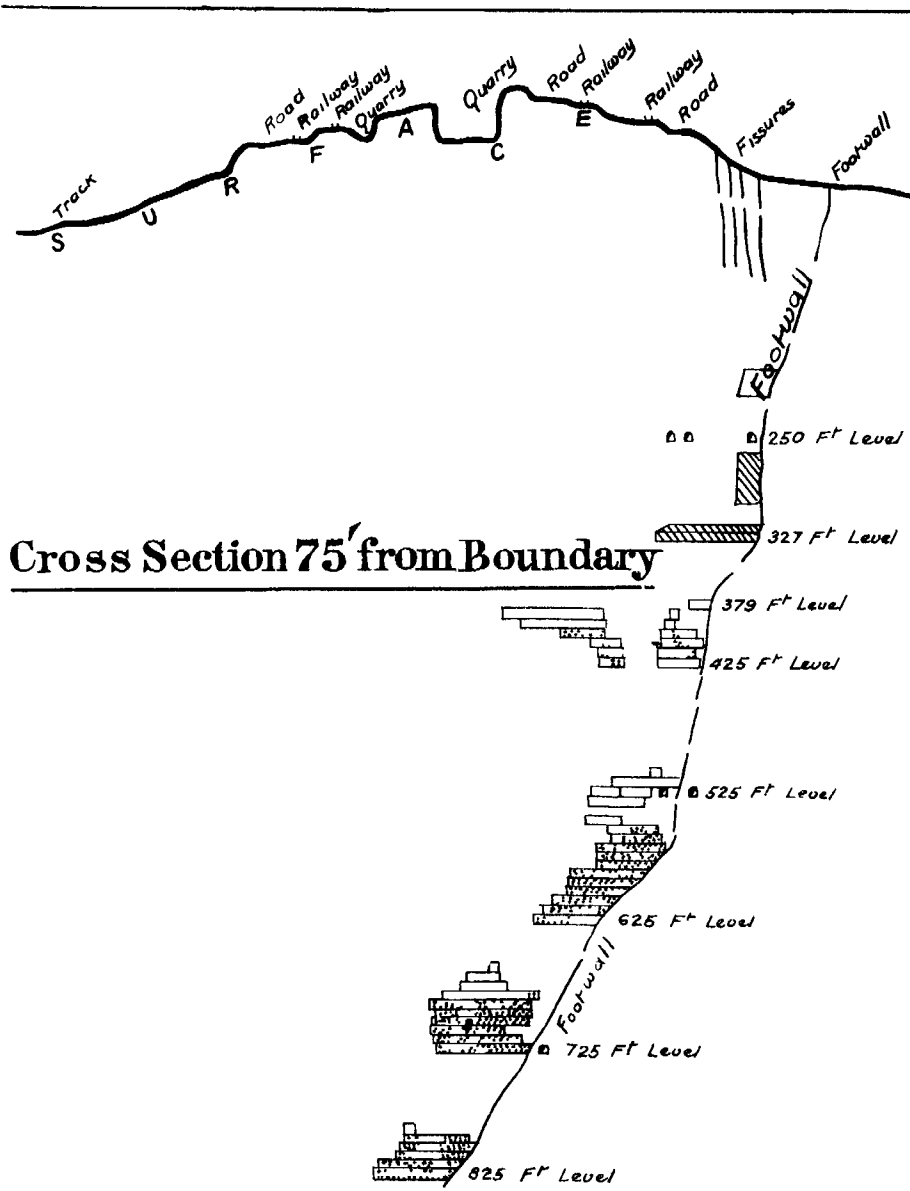
Longitudinal Section



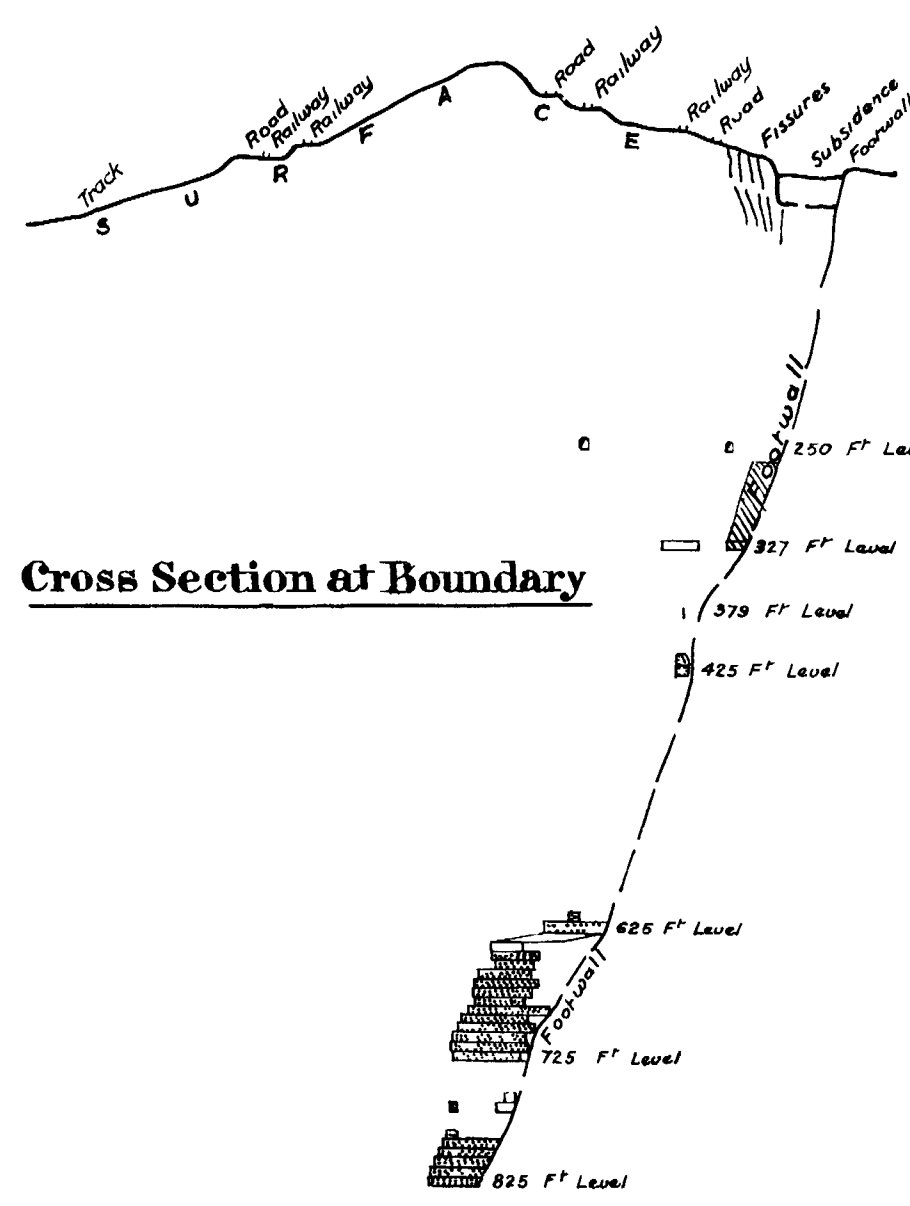
Cross Section 124 from Boundary



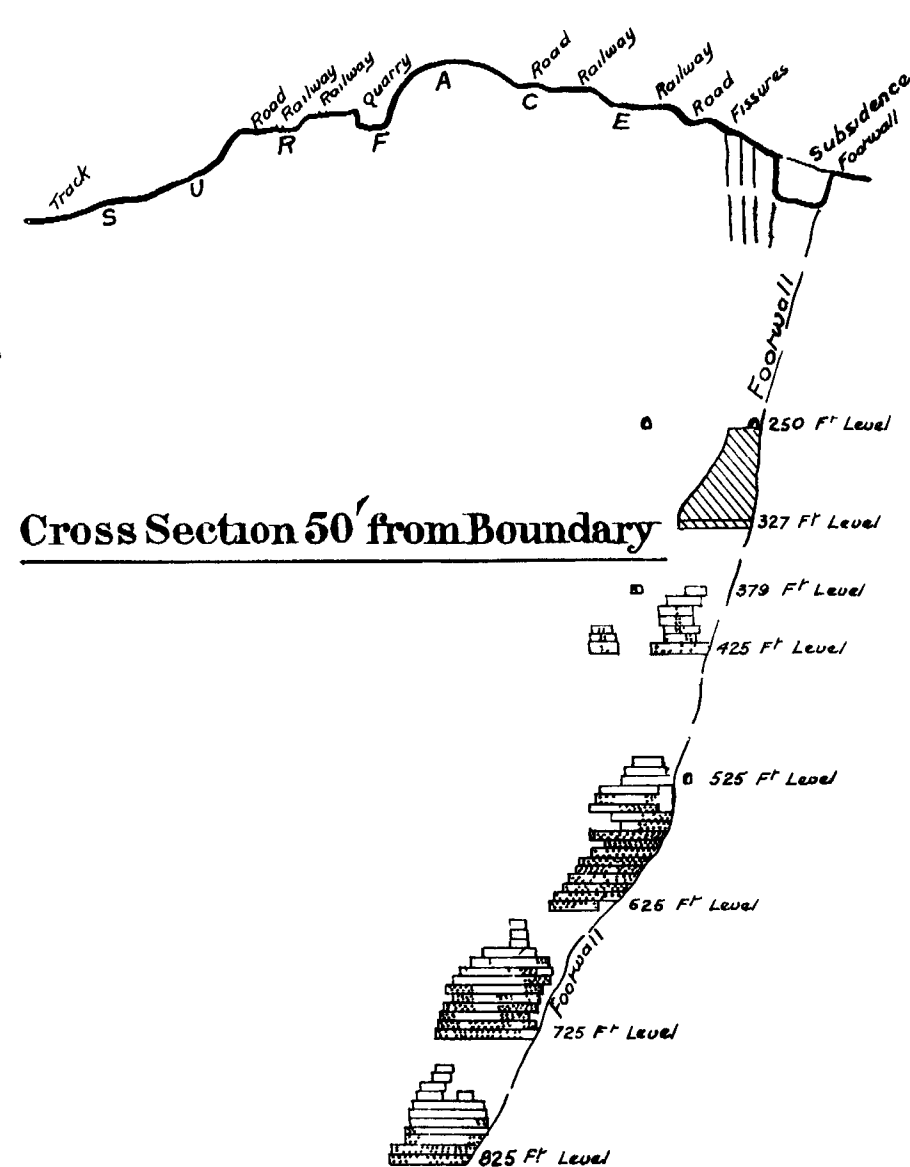
Cross Section 25 from Boundary



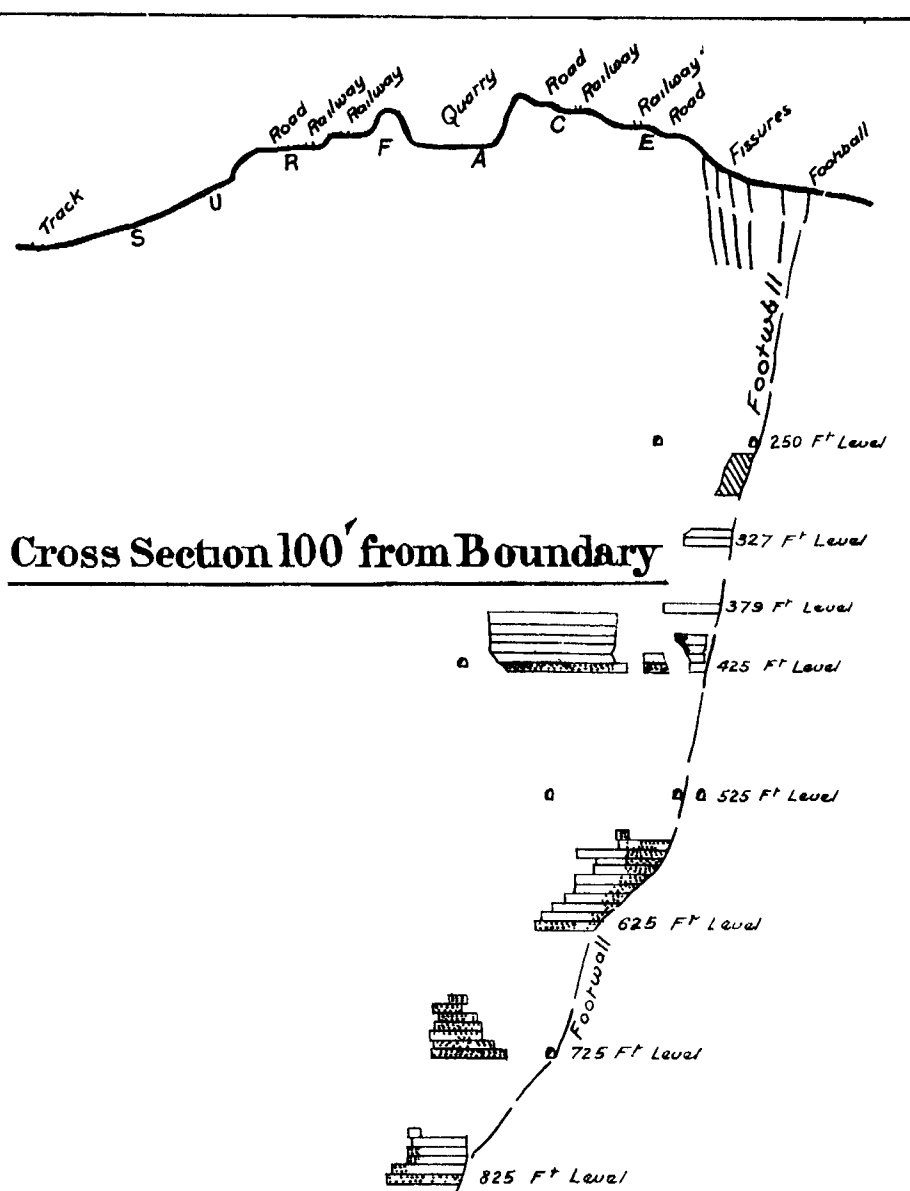
Cross Section 75 from Boundary



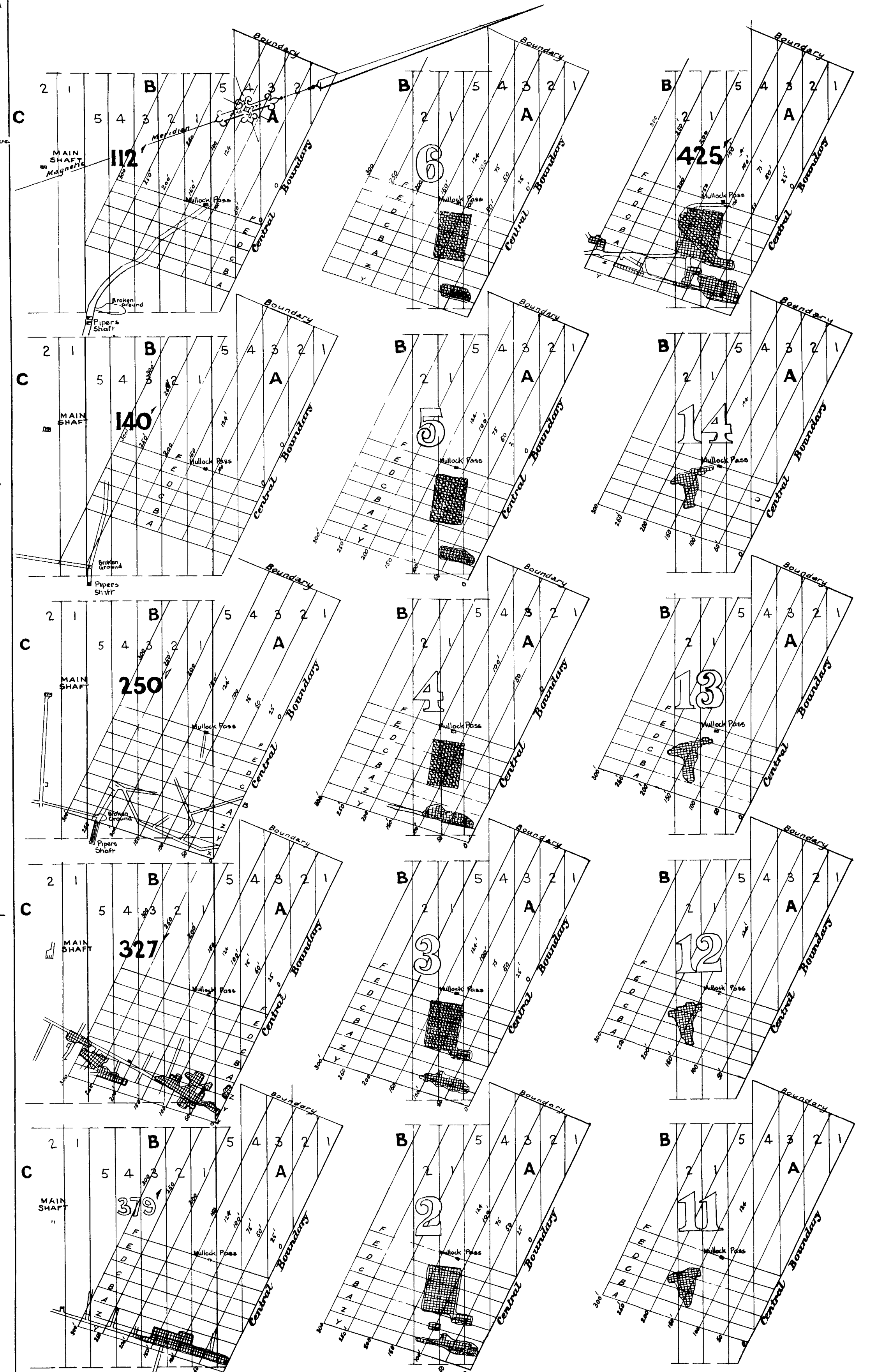
Cross Section at Boundary



Cross Section 50 from Boundary



Cross Section 100 from Boundary



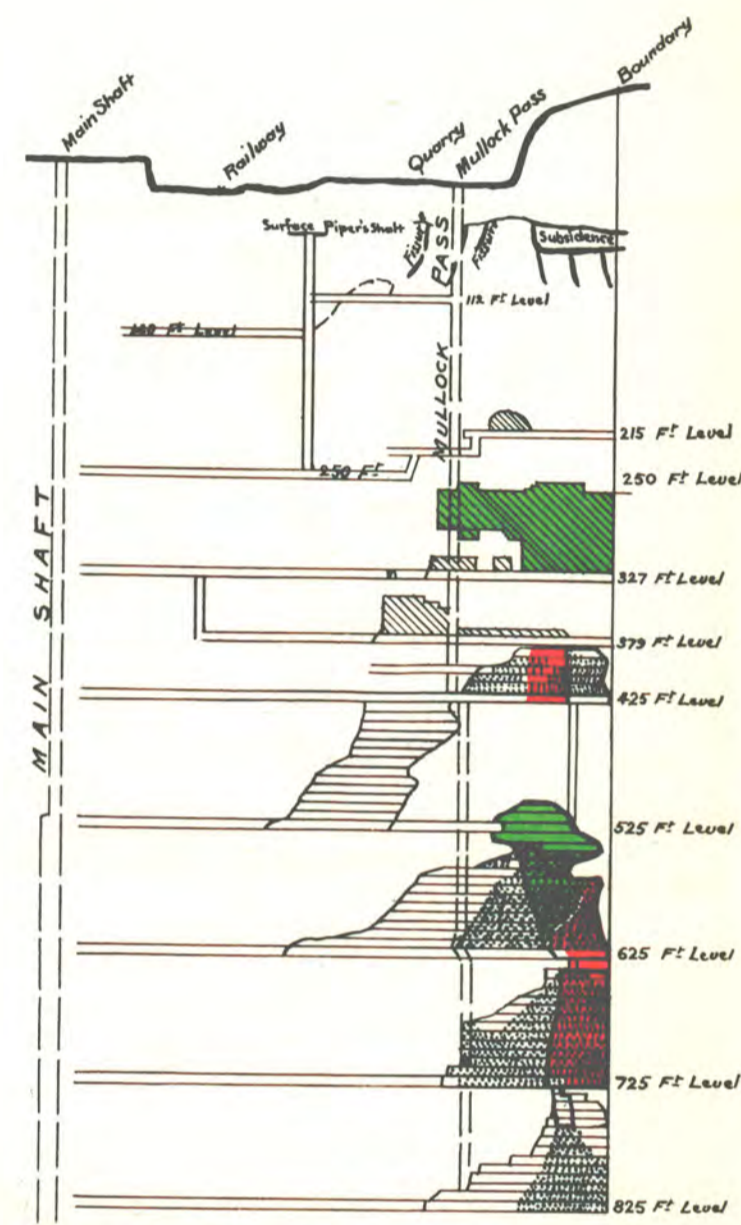
B.H.SOUTH S.M.Co.

Sections & Plan of Underground Workings near Central Boundary

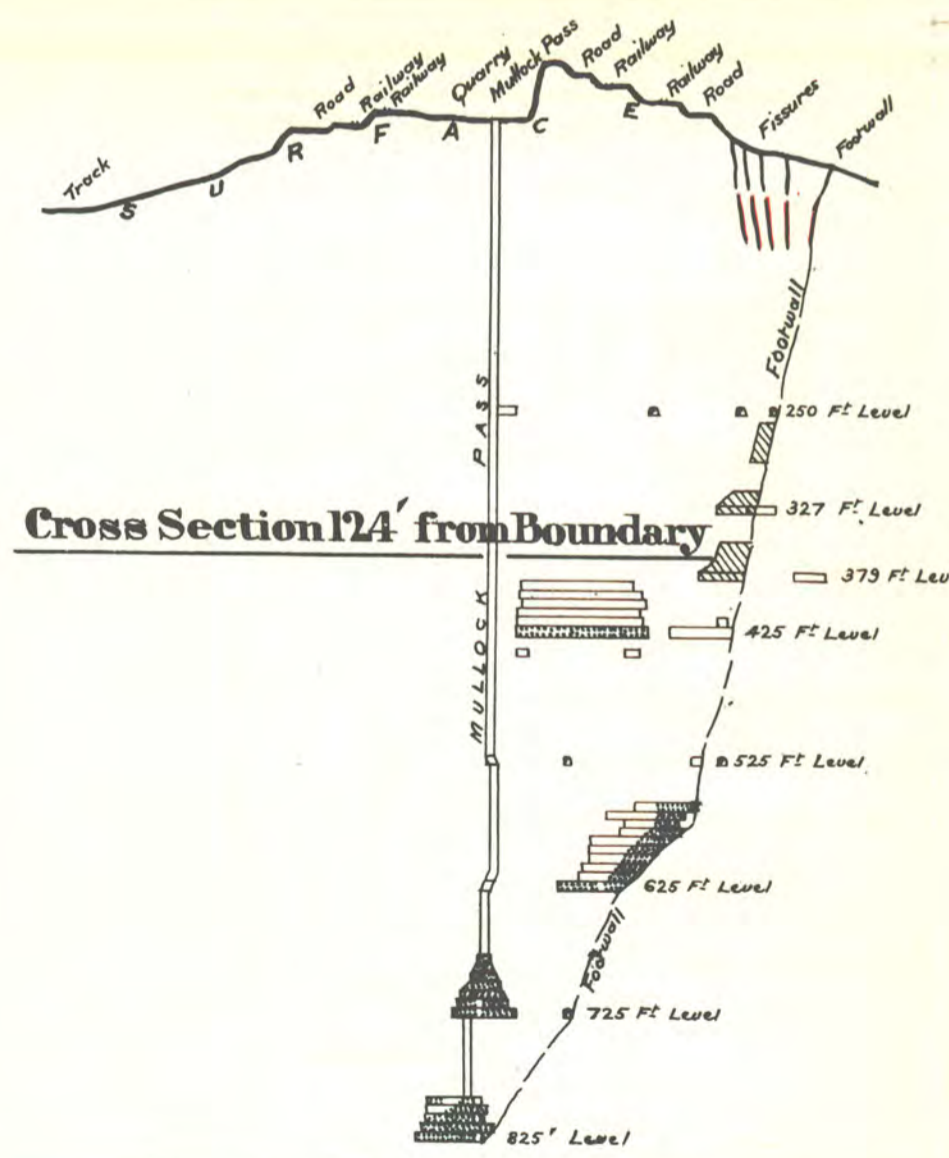
Scale 150 Feet to an Inch

Albert W. Stohr, Surveyor in Co. 10th Feb'y 1903

Part affected by Creep of October 1902 shewn in Red

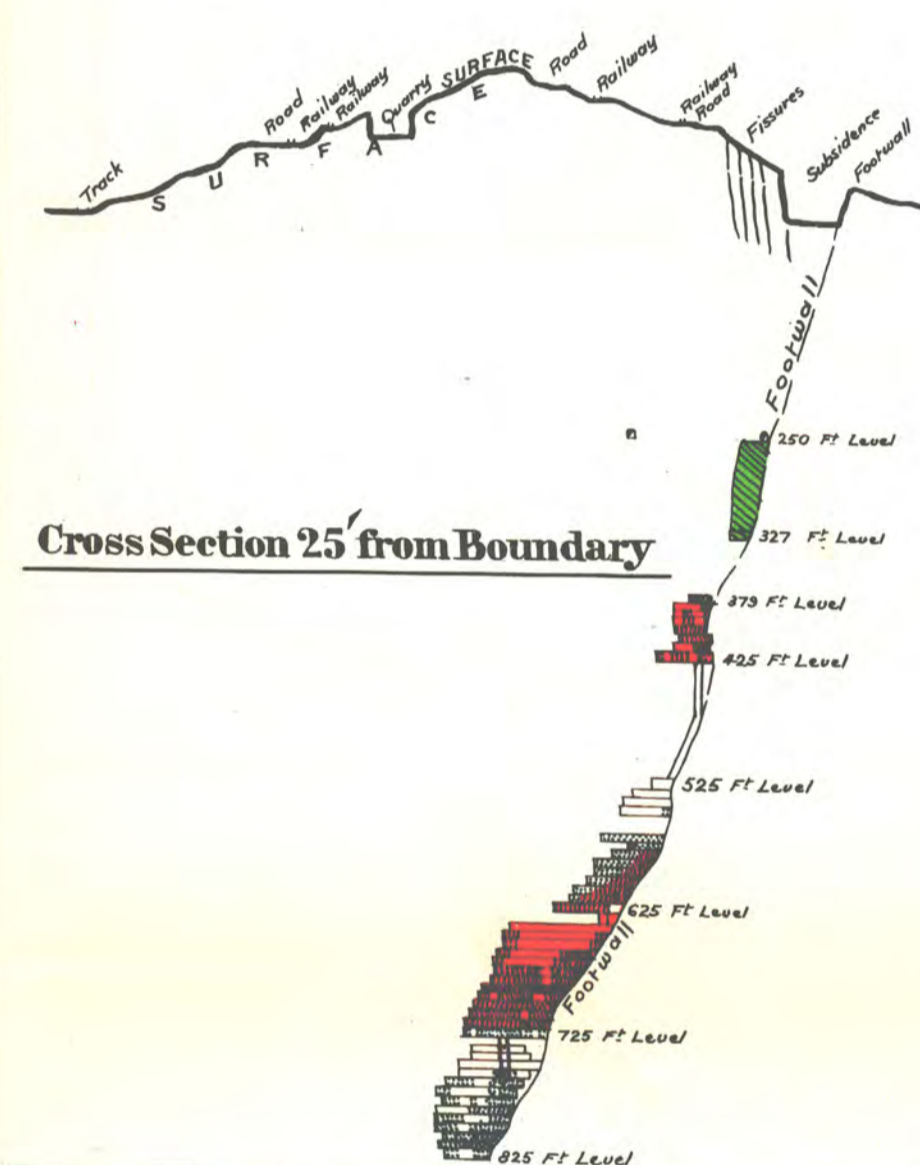


Longitudinal Section

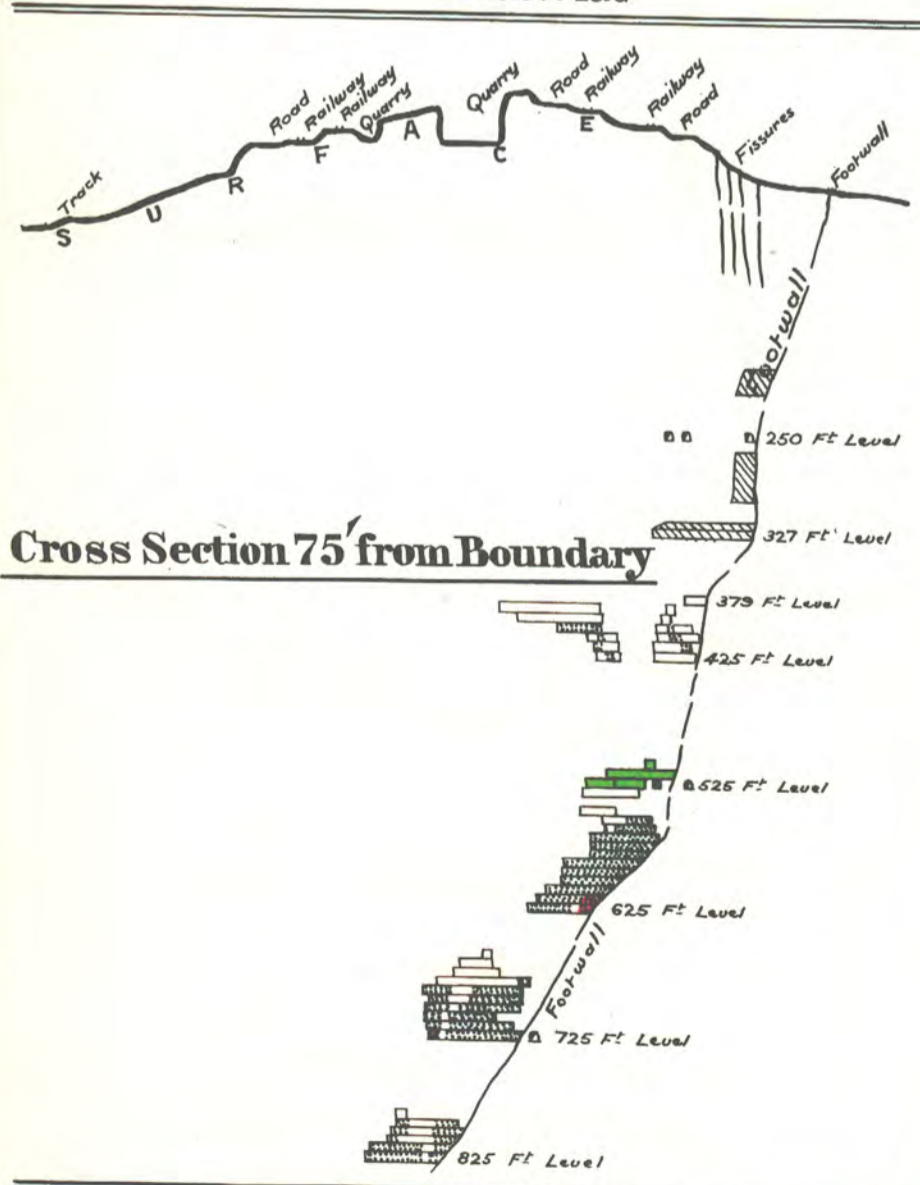


Cross Section 124' from Boundary

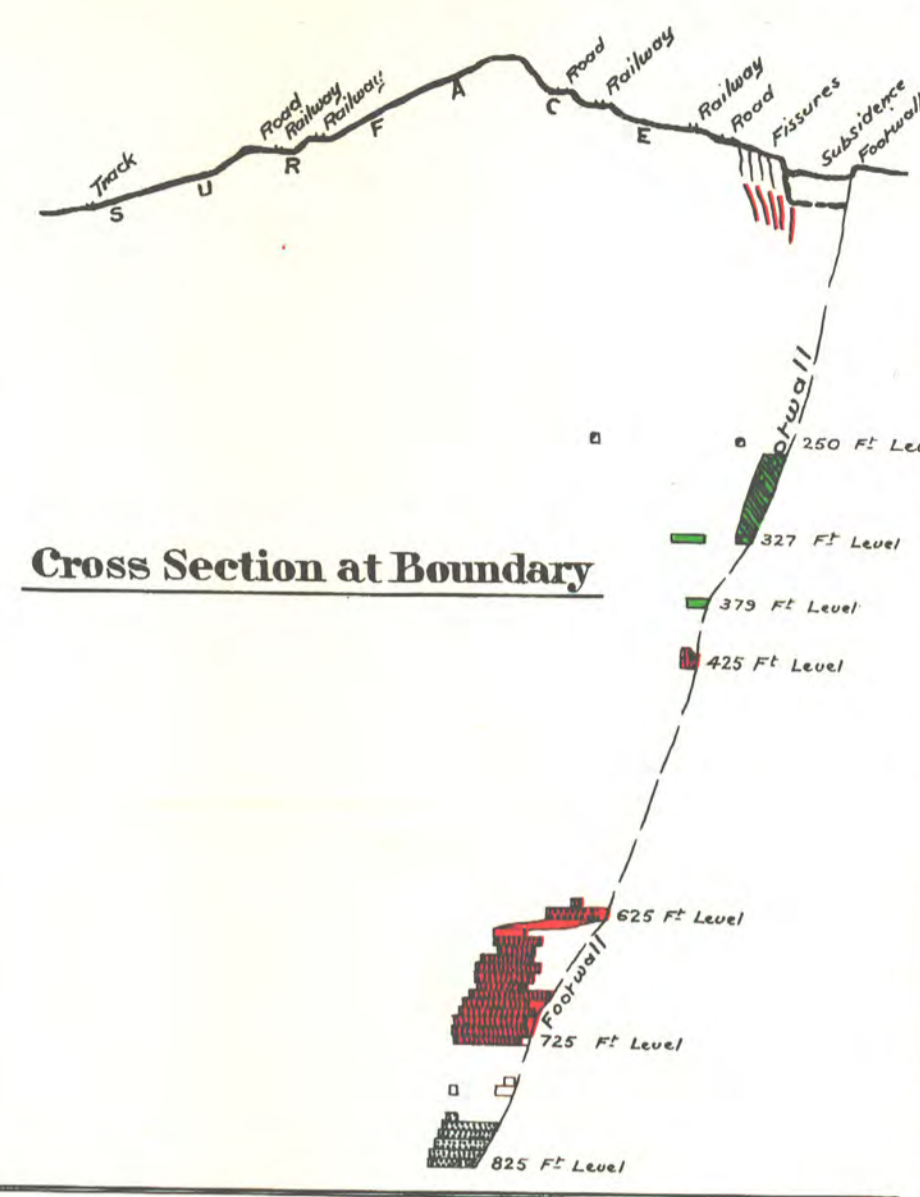
Exhibit No. 7.
ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.
O. Dumeath Cooper,
Secretary.
March 10th, 1903.



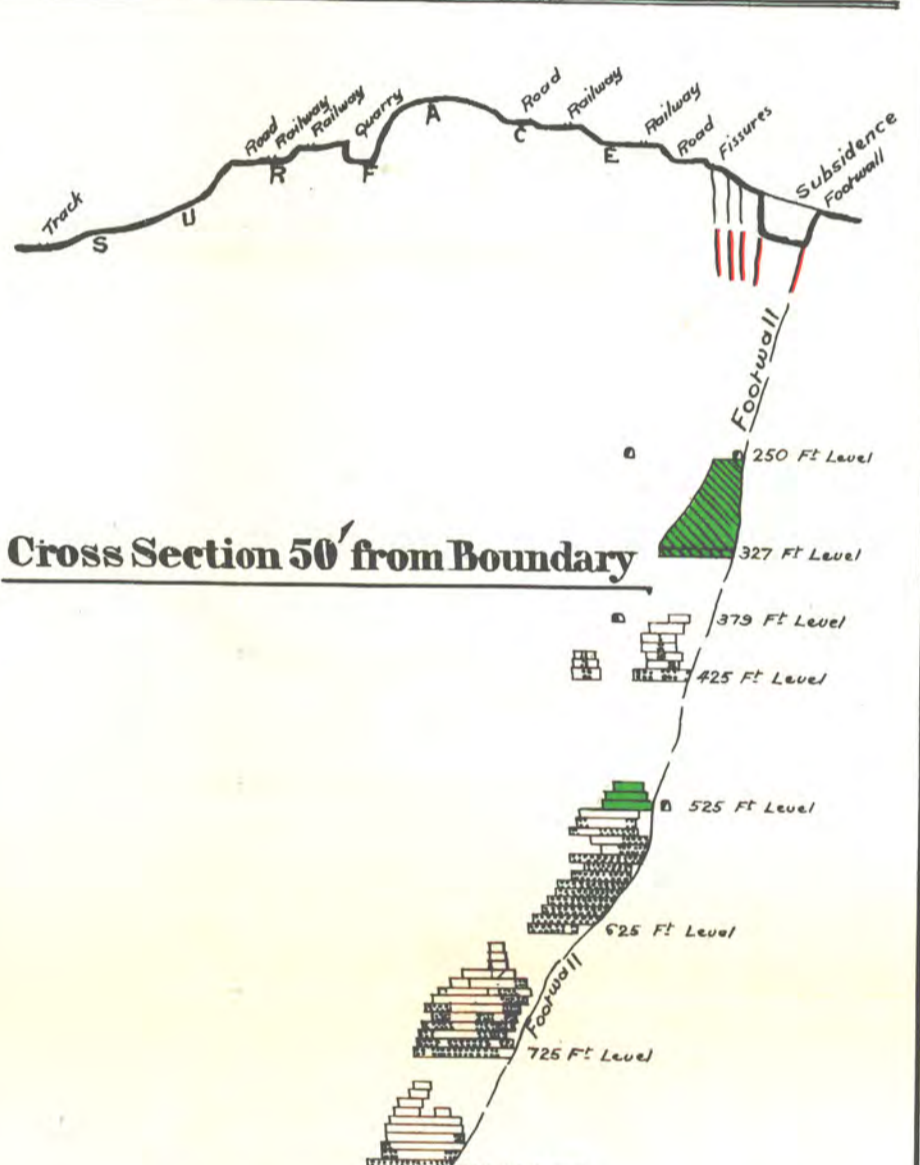
Cross Section 25' from Boundary



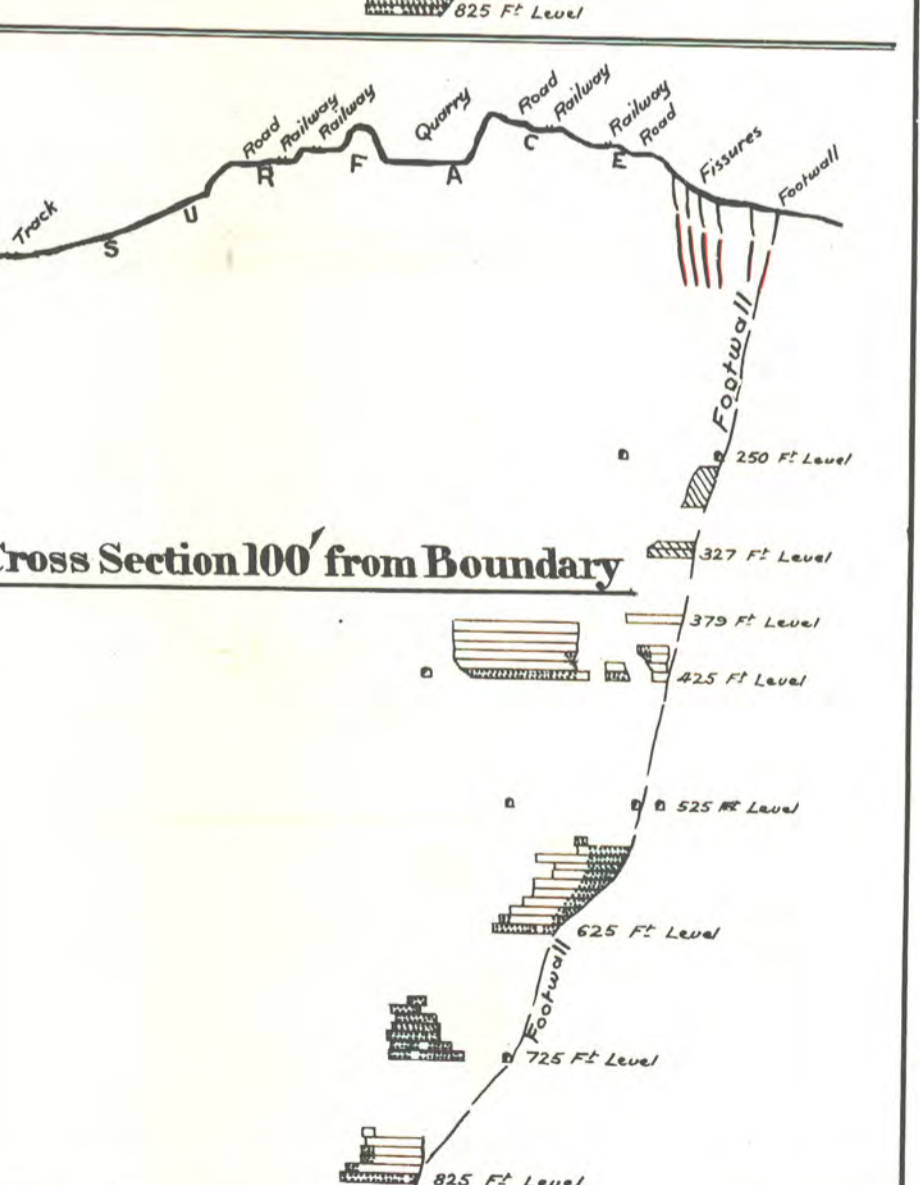
Cross Section 75' from Boundary



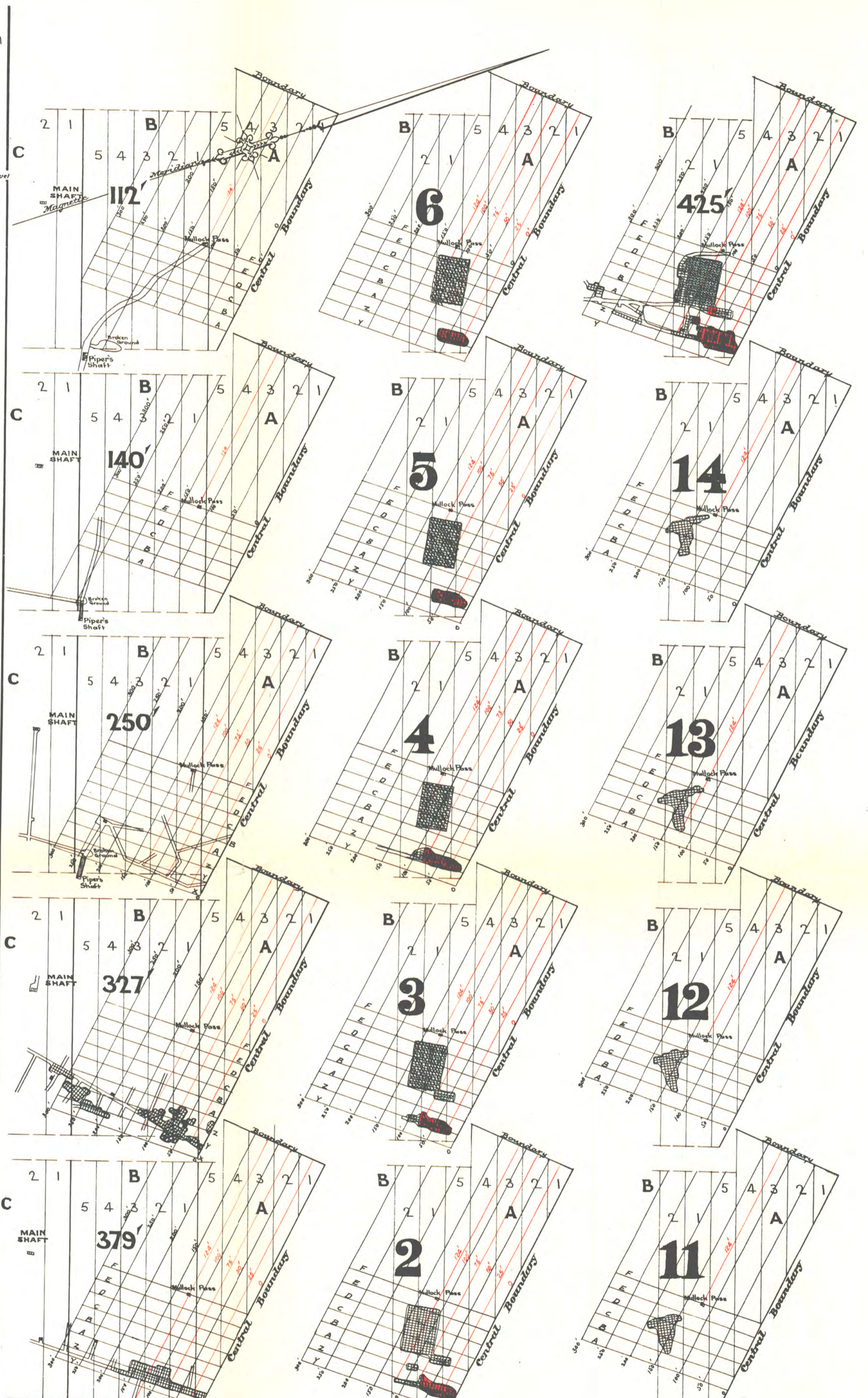
Cross Section at Boundary

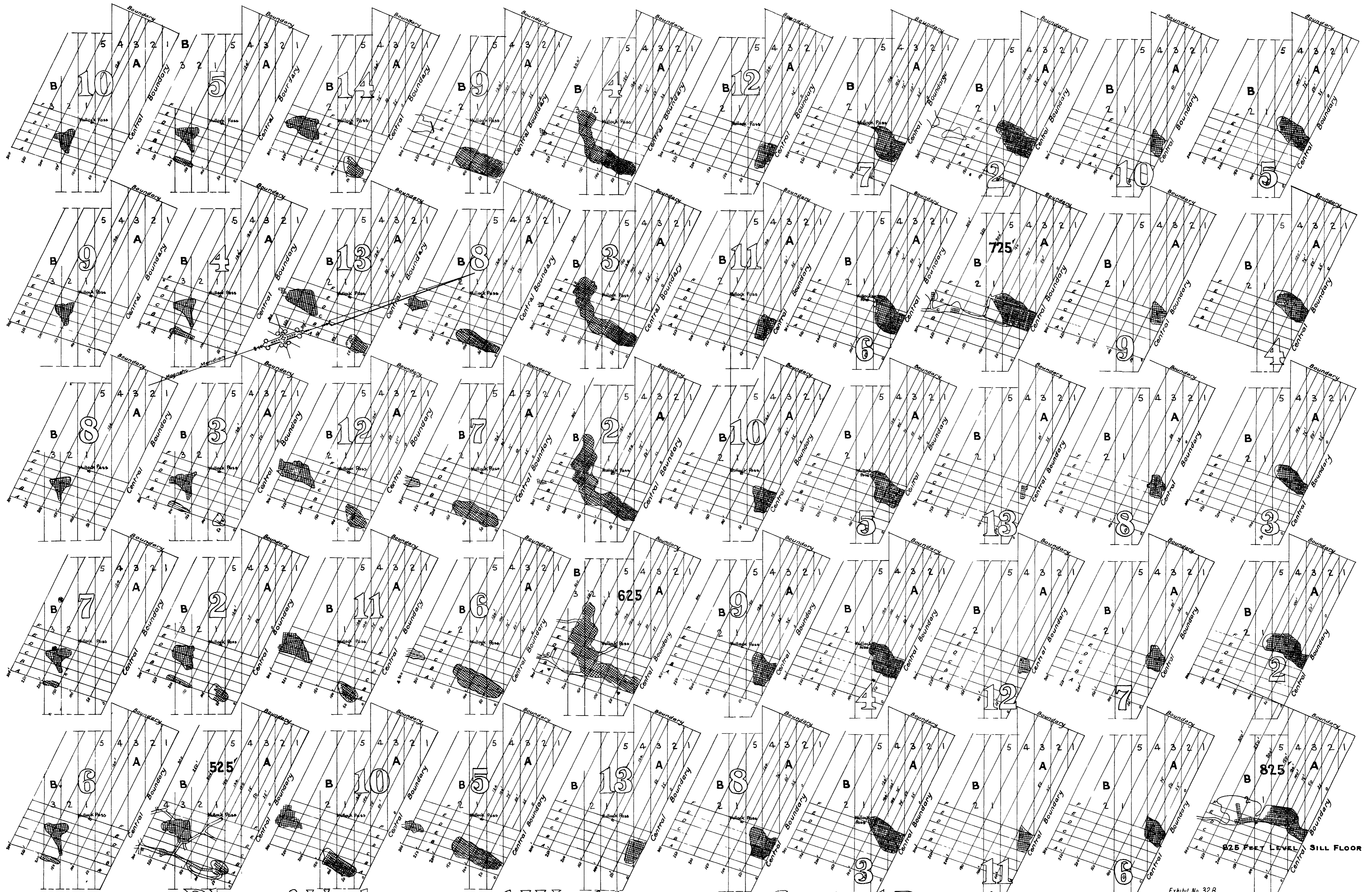


Cross Section 50' from Boundary

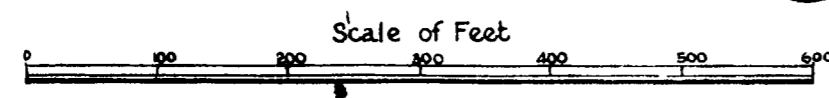


Cross Section 100' from Boundary





Plan of Underground Workings near Central Boundary



— B.H. South S.M.Co. —

Sets affected by Creep of October, 1902, shown in Red

21705 (516 104)

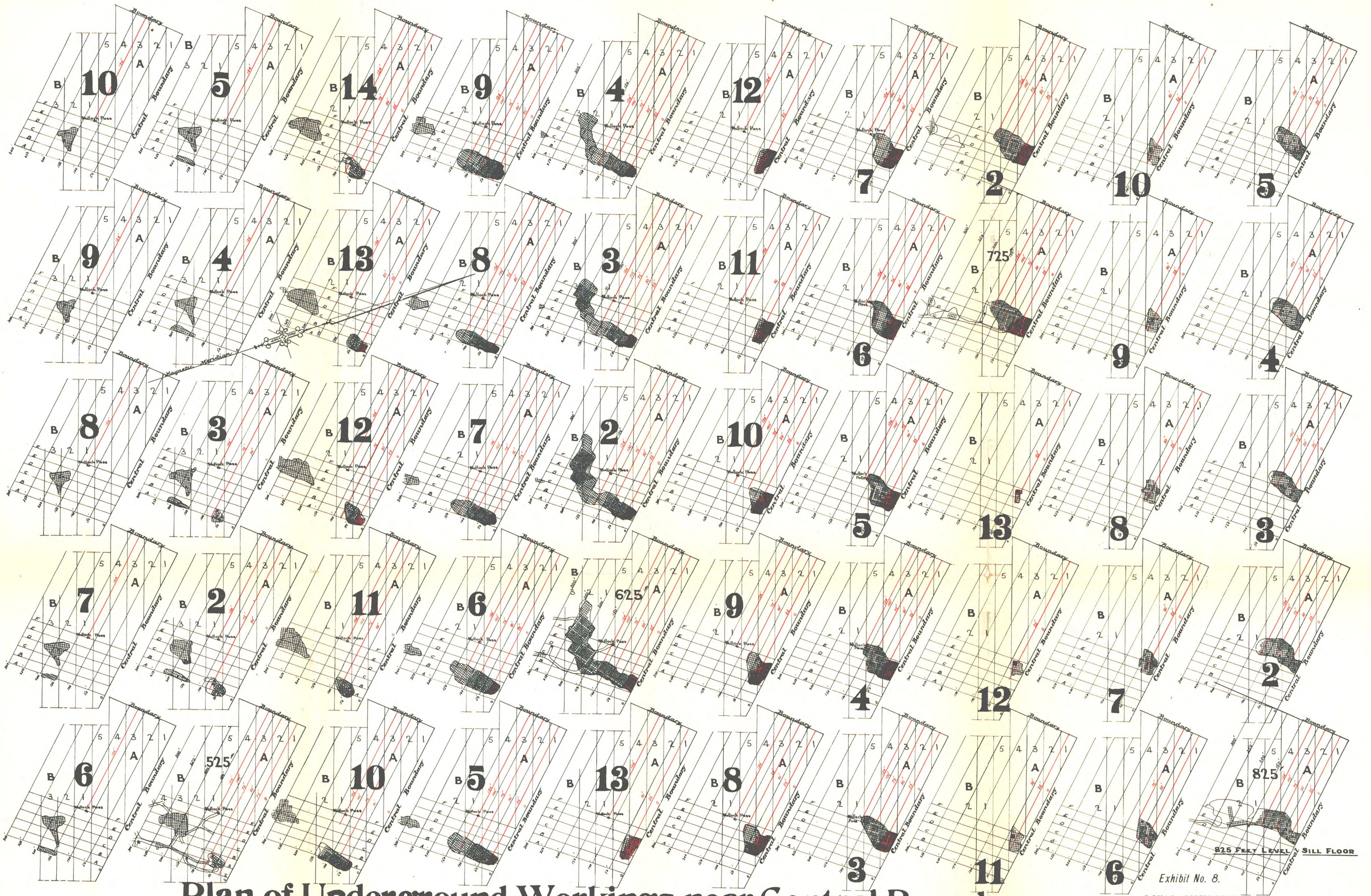
Photo lithographed by
W. A. Galloway Government Printer
Sydney, N.S.W.

Exhibit No 32 B

ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL

O. Dumath Cooper
Secretary

March 27th 1903



Plan of Underground Workings near Central Boundary

Scale 150 Feet to an Inch

—B.H.SOUTH S.M.Co.—

Sets affected by Creep of October 1902 shewn in Red

Exhibit No. 8.

ROYAL COMMISSION,
CENTRAL MINE DISASTER,
BROKEN HILL.

O. Dumeath Cooper,
Secretary.

March 10th 1903.